

...
...
...

(...)
...
...
...
...

(...)
...
...
...
...
...

(...)
...
...
...
...
...

(...)
...
...
...
...
...

(...)
...
...
...
...
...

- (س) B2 ۽ اڳوڻو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سر) C1 ڊسٽرڪٽ اٽو اٽو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سم) C2 سڀني ڳوٺڙي اٽو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سن) C3 سڀني ڳوٺڙي ڳوٺڙي ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سو) C4 اٽو ڳوٺڙو اٽو ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سٺ) D1 اٽو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڀ) D2 ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄ) E1 سڀني ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) E2 اٽو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) E3 اٽو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F1 ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F2 ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F3 ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F4 سڀني ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F5 ڳوٺڙو ڳوٺڙو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F6 ڳوٺڙو ڳوٺڙو ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F7 ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) F8 سڀني ڳوٺڙو: 6 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛
- (سڄو) G1 ڳوٺڙو ڳوٺڙو: 1 (رٽرن) ڏسڻو ڳوٺڙي ڳوٺڙي؛

10. (س) 10. (س) 10. (س)

10. (س) 10. (س) 10. (س)

10. (س) 10. (س) 10. (س)

10. (س) 10. (س) 10. (س)

11. (س) 11. (س) 11. (س)

11. (س) 11. (س) 11. (س)

11. (س) 11. (س) 11. (س)

PART I:

BUILDING CODE FOR TYPE 1 BUILDINGS

The following parts are applicable to only Type 1 Buildings

Clause A1

CLASSIFIED USES

EXPLANATION

For the purposes of this building code, *Type 1 Buildings* are classified according to type, under seven categories. A building with a given classified use may have one or more intended uses.

1.0 HOUSING

Applies to a *Type 1 Building* or use where there is self care and service (internal management). There are three types.

1.0.1 Detached Dwellings

Applies to a *Type 1 Building* or use where a group of people live as a single household or family. Examples: a holiday cottage, boarding house accommodating fewer than 6 people, dwelling or hut.

1.0.2 Multi-unit Dwelling

Applies to a *Type 1 Building* or use which contains more than one separate household or family. Examples: an attached dwelling, flat or multi-unit apartment.

1.0.3 Group Dwelling

Applies to a *Type 1 Building* or use where groups of people live as one large extended family. Examples: within communal housing centers.

2.0 COMMUNAL RESIDENTIAL

Applies to *Type 1 Building* or use where assistance or care is extended to the *principal users*. There are two types.

2.0.1 Community Service

Applies to a residential *building* or use where limited assistance or care is extended to the *principal users*. Examples: a boarding house, hall of residence, holiday cabin, hostel, holiday resort, hotel, motel, nurse's home.

2.0.2 Community Care

Applies to a residential *building* or use where a large degree of assistance or care is extended to the *principal users*. There are two types:

- (a) **Unrestrained;** where the *principal users* are free to come and go. Examples: a hospital, an old people's home or a health camp.
- (b) **Restrained;** where the *principal users* are legally or physically constrained in their movements. Examples: a borstal or drug rehabilitation centre, an old people's home where substantial care is extended, a prison or hospital.

3.0 COMMUNAL NON-RESIDENTIAL

Applies to a *Type 1 Building* or use being a meeting place for people where care and service is provided by people other than the *principal users*. There are two types:

3.0.1 Assembly Service

Applies to a *Type 1 Building* or use where limited care and service is provided. Examples: a mosque, cinema, clubroom, hall, museum, public swimming pool, stadium or theatre.

3.0.2 Assembly Care

Applies to a *Type 1 Building* or use where a large degree of care and service is provided. Examples: an early childhood centre, college, day care institution, centre for handicapped persons, kindergarten, school or university.

4.0 COMMERCIAL

4.0.1 Applies to a *Type 1 Building* or use in which any natural resources, goods, services or money are either developed, sold, exchanged or stored. Examples: an amusement park, auction room, bank, car-park, catering facility, coffee bar, computer centre, fire station, funeral parlour, hair-dresser, library, office (commercial or government), police station, post office, public laundry, radio station, restaurant, service station, shop, showroom, storage facility, television station or transport terminal.

5.0 INDUSTRIAL

5.0.1 Applies to a *Type 1 Building* or use where people use material and physical effort to:

- (a) extract or convert natural resources,
- (b) produce goods or energy from natural or converted resources,
- (c) repair goods, or
- (d) store goods (ensuing from the industrial process). Examples: an agricultural building, agricultural processing facility, aircraft hangar, factory, power station, sewage treatment works, warehouse or utility.

6.0 OUTBUILDINGS

6.0.1 Applies to a *Type 1 Building* or use which may be included within each classified use but are not intended for human habitation, and are accessory to the principal use of associated buildings. Examples: a carport, farm building, garage, greenhouse, machinery room, private swimming pool, public toilet, or shed.

7.0 ANCILLARY

7.0.1 Applies to a *Type 1 Building* or use not for human habitation and which may be exempted from some amenity provisions, but which are required to comply with structural and safety-related aspects of the *building code*. Examples: a bridge, derrick, fence, free standing outdoor fireplace, jetty, mast, path, platform, pylon, retaining wall, tank, tunnel or dam.

Clause A2 INTERPRETATION

In PART II of building code unless the context otherwise requires, words shall have the meanings given under this Clause.

Access route means, a continuous route that permits people and goods to move between the apron or *construction* edge of the *building* to spaces within a *building*, and between spaces within a *building*.

Accessible means, having features to permit use by *people with disabilities*.

Accessible route means, an *access route* usable by *people with disabilities*. It shall be a continuous route that can be negotiated unaided by a wheelchair user. The route shall extend from street boundary or car parking area to those spaces within the *building* required to be *accessible* to enable *people with disabilities* to carry out normal activities and processes within the *building*.

Adequate means, *adequate* to achieve the objectives of the building code.

Adjacent building means, a nearby *building*, including an adjoining *building*, whether or not erected on *other property*.

Alter means in relation to a *building*, includes to rebuild, re-erect, repair, enlarge and extend; and **alteration** has a corresponding meaning.

Allotment means, any parcel of land that is a continuous area of land and whose boundaries are defined by *building consent authority* deed, a continuous area of land held by deed only, or a continuous area of land in which the deed has been transferred by any other government authority for development purposes to the developer.

Amenity means, an attribute of a *building* which contributes to the health, physical independence, and well being of the *building's* users but which is not associated with disease or a specific illness.

Building has the corresponding meaning stated in clause 99 (أ) of Construction Act.

Building Inspector means, a person approved as a *building inspector* by the *Ministry*.

Building code means, the *building code* herein.

Building consent means, a consent to carry out *building work* granted by a *building consent authority* and includes all conditions to which the consent is subject.

Building Consent Authority has the corresponding meaning stated in clause 99 (أ) of Construction Act

Building element means, any structural or non-structural component and assembly incorporated into or associated with a *building*. Included are *fixtures*, services, *drains*, permanent mechanical installations for access, glazing, partitions, ceilings and temporary supports.

Building height means, the vertical distance between the ground level or pavement level and the highest point of

the building.

Building work means, work for or in connection with the *construction, alteration, demolition, or removal of a building*; and includes *sitework*.

Certificate of Compliance for Occupancy means, a certificate that certifies a “Type 1 Building” as constructed as per the approved drawings and the finished building’s visible parts are as per Construction Act and Regulations under Construction Act as well as relevant other regulations, issued by a *building consent authority* or a *building inspector*.

Combustion appliance means, a slow combustion stove, a free standing metal cone fireplace or a cast iron pot belly stove.

Concealed space means, any part of the space within a *building* that cannot be seen from an *occupied space*.

Construct means, in relation to a *building*, includes to build, erect, prefabricate, and relocate; and

Construction has a corresponding meaning.

Contaminant means any substance, whether gaseous, liquid, or solid that —

- (a) Is foreign to or alters the balance of the natural constituents of the environment into which it is introduced; and
- (b) Is or may be injurious to, or will or may adversely affect, the environment or the health or the safety of persons or property:

Drain means, a pipe normally laid below ground level including fittings and equipment and intended to convey *foul water* or *surface water* to an *outfall*.

Electrical fixed appliance means, an electrical appliance which is fixed-wired to the *electrical installation*, or intended to remain permanently attached and form part of the *building*.

Electrical installation means, any *electrical fixed appliances*, and components used in the reticulation of electricity, which are intended to remain permanently attached to and form part of the *building*.

Electrical supply system means, the source of electricity external to the *electrical installation*.

Escape route means, a continuous unobstructed route from any *occupied space* in a *building* to a *final exit* to enable occupants to reach a *safe place*, and shall comprise one or more of the following: *open paths, protected paths* and *safe paths*.

Essential service in the context of an *electrical installation* means emergency lighting, firemen’s lifts, alarms, water pumps, sprinklers, detectors, ventilation systems and public address systems necessary for the safety of people in *buildings*.

Evacuation time means, the time taken by the occupants of the *building* to evacuate the *building* to a *final exit*.

Exit way means, all parts of an *escape route* protected by *fire or smoke separations*, or by distance when exposed to open air, and terminating at a *final exit*.

External wall means, any exterior face of a *building* within 30° of vertical, consisting of primary and/or secondary

elements intended to provide protection against the outdoor environment, but which may also contain *unprotected areas*.

Final exit means, the point at which an *escape route* terminates by giving direct access to a *safe place*.

Fire means, the state of combustion during which flammable materials burn producing heat, toxic gases, or smoke or flame or any combination of these.

Fire cell means, any space including a group of contiguous spaces on the same or different levels within a *building*, which is enclosed by any combination of *fire separations*, *external walls*, roofs, and floors.

Fire hazard means, the danger in terms of potential harm and degree of exposure arising from the start and spread of *fire* and the smoke and gases that are thereby generated.

Fire Intensity means, the rate release of calorific energy in watts, determined either theoretically or empirically, as applicable.

Fire load means, the sum of the net calorific values of the combustible contents which can reasonably be expected to burn within a *firecell*, including furnishings, built-in and removable materials, and *building elements*. The calorific values shall be determined at the ambient moisture content or humidity. (The unit of measurement is Mega Joule - MJ)

Fire resistance rating (FRR) means, the term used to classify *fire* resistance of primary and secondary elements as determined in the standard test for fire resistance, or in accordance with a specific calculation method verified by experimental data from standard *fire* resistance tests. It comprises three numbers giving the time in minutes for which each of the criteria *stability*, *integrity* and *insulation* are satisfied, and is presented always in that order.

Fire resisting closure means, a *fire* rated device or assembly for closing an opening through a *fire separation*.

Fire safety system means, the combination of all methods used in a *building* to warn people of an emergency, provide for safe evacuation, and restrict the spread of fire, and includes both active and passive protection.

Fire separation means, any *building element* which separates *firecells* or *firecells* and *safe paths*, and provides a specific *fire resistance rating*.

Fixture means, an article intended to remain permanently attached to and form part of a *building*.

Foul water means, the discharge from any *sanitary fixtures* or *sanitary appliances*.

Foul water drainage system means, *drains* joints and fittings normally laid underground and used specifically for the conveyance of water from the *plumbing system* to an *outfall*.

Habitable space means, a space used for activities normally associated with domestic living, but excludes any bathroom, laundry, water-closet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes-drying room, or other space of a specialised nature occupied neither frequently nor for extended periods.

Handrail means, a rail to provide both support to, or assist with the movement of a person.

Hazardous means, creating an unreasonable risk to people, of bodily injury or deterioration of health.

Hazardous substance means, any substance that has one or more of the following properties:
(a) explosiveness; (b) flammability; (c) ability to oxidize; (d) human toxicity; (e) corrosiveness;

(f) ecotoxicity or (g) capacity, on contact with air or water, to develop one or more of the above properties.

Household unit means, any *building* or group of *buildings*, or part of any *building* or group of *buildings*, used or intended to be used solely or principally for residential purposes and occupied or intended to be occupied exclusively as the home or residence of not more than one household; but does not include a hostel or boardinghouse or other specialised accommodation.

Illuminance means, the luminous flux falling onto a unit area of surface.

Impact insulation class (IIC) means, a single number rating derived from measured values of normalised sound pressure impact levels in accordance with Method ASTM E492, Annex A1. Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine. It provides an estimate of the impact sound insulating performance of a floor-ceiling assembly.

Impervious means, that which does not allow the passage of moisture.

Insulation means, in the context of *fire* protection, the time in minutes for which a prototype specimen of a *fire separation*, when subjected to the *standard test* for *fire* resistance, has limited the transmission of heat through the specimen.

Integrity means, in the context of *fire* protection, the time in minutes for which a prototype specimen of a *fire separation*, when subjected to the *standard test* for *fire* resistance, has prevented the passage of flame or hot gases.

Intended use of a *building* includes—

- (a) Any reasonably foreseeable occasional other use that is not incompatible with the *intended use*; and
- (b) Normal maintenance; and
- (c) Activities taken in response to *fire* or any other reasonably foreseeable emergency—but does not include any other maintenance and repairs or rebuilding.

Ministry means, the ministry responsible to formulate policy and implement Act number 4/2017, Construction Act.

Network utility operator means a person who—

- (a) Undertakes the distribution or transmission by pipeline of natural or manufactured gas or petroleum; or
- (b) Is an electricity operator or power network operator or electrical supply authority or power supply authority; or
- (c) Undertakes the piped distribution of potable water for supply; or
- (d) Is the operator of a sewerage system or a stormwater drainage system.

Occupied space means, any space within a *building* in which a person will be present from time to time during the *intended use* of the *building*.

Open path means, that part of an *escape route* (including dead ends) not protected by *fire* or *smoke separations*, and which terminates at a *final exit* or *exitway*.

Other property means, any land or *buildings* or parts thereof which are—

- (a) Not held under the same *allotment*; or

- (b) Not held under the same ownership unless specific *building consent authority* approval is not taken for joint development— and includes any road.
- (c) Not part of the plot which construction is to be undertaken

Outdoor air means, air as typically comprising by volume. (i) oxygen 20.94% (ii) carbon dioxide 0.03% (iii) nitrogen and other inert gases 79.03%

Outfall means, that part of the disposal system receiving *surface water* or *foul water* from the drainage system. For *foul water* the *outfall* may include a *sewer* or a septic tank. For *surface water*, the *outfall* may include a natural water course, kerb and channel, or soakage system.

People with disabilities means, people whose ability to use *buildings* is affected by mental, physical, hearing or sight impairment.

Plumbing system means, pipes, joints and fittings laid above ground and used for the conveyance of *foul water* to the *foul water drain*, and includes vent pipes.

Protected path means, that portion of an *exitway* within a *firecell* which is protected from the effects of smoke by *smoke separations*.

Principal user means, a member of the primary group for which a *building* was constructed, and therefore explicitly excludes persons or groups of persons providing care or control of that *principal user* group.

Public housing means, housing provided by government.

Purpose group means, the classification of spaces within a *building* according to the activity for which the spaces are used.

Safe path means, that part of an *exit way* which is protected from the effects of *fire* by *fire separations*, *external walls* or by distance when exposed to open air.

Safe place means, a place of safety in the vicinity of a *building*, from which people may safely disperse after escaping the effects of a *fire*. It may be a place such as a street, open space, public space or an *adjacent building*.

Sanitary appliance means, an appliance which is intended to be used for *sanitation*, but which is not a *sanitary fixture*. Included are machines for washing dishes and clothes.

Sanitary fixture means, Any *fixture* which is intended to be used for *sanitation*.

Sanitation means, the term used to describe the activities of washing and/or excretion carried out in a manner or condition such that the effect on health is minimised, with regard to dirt and infection.

Sewer means, a *drain* that is under the control of, or maintained by, a *network utility operator*.

Sitework means, work on a *building* site, including earthworks, preparatory to or associated with the *construction*, *alteration*, demolition, or removal of a *building*.

Smoke separation means, any vertical, horizontal or inclined *building element* with known smoke-stopping or smoke-leakage characteristics.

Sound transmission class (STC) means, a single number rating derived from measured values of transmission loss in accordance with classification ASTM E413, Determination of Sound Transmission Class. It provides an

estimate of the performance of a partition in certain common sound insulation situations.

Specified intended life in relation to a *building*, means the period of time, for which the *building* is proposed to be used for its *intended use*.

Surface water means, all naturally occurring water, other than sub-surface water, which results from rainfall on the site or water flowing onto the site, including that flowing from a *drain*, pond or sea.

Stability means, In the context of *fire* protection, the time in minutes for which a prototype specimen of a primary element, when subjected to the standard test for *fire* resistance, has continued to carry its *fire* design load without failure.

Travel distance means, the length of the *escape route* as a whole or the individual lengths of its parts, namely: (a) *open paths*; (b) *protected paths*; and (c) *safe paths*.

Type 1 Building has the meaning ascribed to it as follows: meaning of *building*—

- (1) unless the context otherwise requires, the term “*Type 1 Building*” means any temporary or permanent movable or immovable structure (including any structure intended for occupation by people, animals, machinery, or chattels); and includes any mechanical, electrical, or other systems, and any utility systems, attached to and forming part of the structure whose proper operation is necessary for compliance with the *building code*; but does not include:
 - (a) Systems owned or operated by a *network utility operator* for the purpose of reticulation of *other property*; or
 - (b) Cranes not attached to any other structure; or
 - (c) Ships
 - (d) Vehicles and motor vehicles, whether movable or immovable, which are used exclusively for permanent or long-term residential purposes; or
 - (e) Containers
 - (f) Scaffolding used in the course of the *construction* process; or
 - (g) Falsework used in the course of the *construction* process.
- (2) For the purposes of a *building consent*, a *code compliance certificate*, and a compliance schedule the term *Type 1 Building* also includes—
 - (a) any part of a *Type 1 Building*; and
 - (b) any 2 or more *Type 1 Buildings* which, on completion of any *building work*, are intended to be managed as 1 *building* with a common use and a common set of ownership arrangements.
- (3) For the purposes of subsection (2) of this section, where any utility system or any part of any utility system—
 - (a) is external to the *Type 1 Building*; and
 - (b) is also connected to or is intended to be connected to—
 - (i) A network under the control of a *network utility operator*; or
 - (ii) Some other facility which is able to provide for the successful functioning of the utility system in accordance with its intended design— that utility system or that part of the utility system shall be deemed to be part of a *Type 1 Building*.
- (4) Notwithstanding the provisions of subsection (3) of this section, where a septic tank is connected to a *Type 1 Building* utility system the septic tank shall be deemed to form part of that *Type 1 Building* utility system.

Unprotected area means, In relation to an *external wall* of a *building* means:

- (a) Any part of the *external wall* which has less than the required *FRR*. For example, a non *fire* rated window, door or other opening, or sheet metal.
- (b) Any part of the *external wall* which has combustible material more than 1.0 mm thick attached or applied

to its external face, whether for cladding or any other purpose.

Water main means, a water supply pipe that is under the control of, or maintained by a *network utility operator*.

Water supply system means, pipes, fittings and tanks used or intended tube used for the storage and reticulation of water from a *water main* or other water source, to *sanitary fixtures*, *sanitary appliances* and fittings with a *building*.

Clause B1 – STRUCTURE

Provisions

Limits on application

OBJECTIVE

B1.1 The objective of this provision is to:

- (a) Safeguard people from injury caused by structural failure,
- (b) Safeguard people from loss of *amenity* caused by structural behaviour, and
- (c) Protect *other property* from physical damage caused by structural failure.

FUNCTIONAL REQUIREMENT

B1.2 *Buildings, building elements and sitework* shall withstand the combination of loads that they are likely to experience during *construction* or *alteration* and throughout their lives.

PERFORMANCE

B1.3.1 *Type 1 Buildings, building elements and sitework* shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during *construction* or *alteration* and throughout their lives.

B1.3.2 *Type 1 Buildings, building elements and sitework* shall have a low probability of causing loss of *amenity* through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during *construction* or *alteration* when the *building* is in use.

B1.3.3 Account shall be taken of all physical conditions likely to affect the stability of *Type 1 Buildings, building elements* and *sitework*, including:

- (a) Self-weight,
- (b) Imposed gravity loads arising from use,
- (c) Temperature,
- (d) Earth pressure,
- (e) Water and other liquids,
- (f) Wind,
- (g) *Fire*,
- (h) Impact,
- (i) Explosion,
- (j) Reversing or fluctuating effects,
- (k) Differential movement,
- (l) Vegetation,
- (m) Adverse effects due to insufficient separation from other *buildings*,
- (n) Influence of equipment, services, non-structural elements and contents,
- (o) Time dependent effects including creep and shrinkage, and
- (p) Removal of support.

B1.3.4 Due allowance shall be made for:

- (a) The consequences of failure,
- (b) The intended use of the *Type 1 Buildings*,
- (c) Effects of uncertainties resulting from *construction* activities, or the sequence in which *construction* activities occur,
- (d) Variation in the properties of materials and the characteristics of the site, and
- (e) Accuracy limitations inherent in the methods used to predict the stability of *Type 1 Buildings*.

B1.3.5 The demolition of *buildings* shall be carried out in a way that avoids the likelihood of premature collapse.

B1.3.6 *Sitework*, where necessary, shall be carried out to:

- (a) Provide stability for *construction* on the site, and
- (b) Avoid the likelihood of damage to *other property*.

B1.3.7 Any *sitework* and associated supports shall take account of the effects of:

- (a) Changes in ground water level,
- (b) Water, weather and vegetation, and
- (c) Ground loss and slumping

Clause B2—DURABILITY

Provisions

Limits on application

OBJECTIVE

B2.1 The objective of this provision is to ensure that a *Type 1 Building* will, throughout its life, continue to satisfy the other objectives of this code.

FUNCTIONAL REQUIREMENT

B2.2 *Building* materials, components and *construction* methods shall be sufficiently durable to ensure that the *Type 1 Building*, without reconstruction or major renovation, satisfies the other functional requirements of this code throughout the life of the *Type 1 Building*.

PERFORMANCE

B2.3 From the time a code compliance certificate or a permit to use is issued, *building elements* shall with only normal maintenance continue to satisfy the performances of this code for the lesser of; the *specified intended life* of the *Type 1 Buildings*, if any, or: For the structure, including *building elements* such as floors and walls which provide structural stability: the life of the *Type 1 Building* being not less than 50 years.

Clause C1— MEANS OF ESCAPE

| Provisions | Limits on application |
|--|-----------------------|
| <p>OBJECTIVE</p> <p>C1.1 The objective of this provision is to:</p> <p>(a)Safeguard people from injury or illness from a <i>fire</i> while escaping to a <i>safe place</i>, and</p> <p>(b)Facilitate <i>fire</i> rescue operation</p> <p>FUNCTIONAL REQUIREMENT</p> <p>C1.2 <i>Type 1 Buildings</i> shall be provided with <i>escape routes</i> which:</p> <p>(a)Give people <i>adequate</i> time to reach a <i>safe place</i> without being overcome by the effects of <i>fire</i>, and</p> <p>(b)Give <i>fire</i> service personal <i>adequate</i> time to undertake rescue operation</p> <p>PERFORMANCE</p> <p>C1.3.1 the number of <i>open paths</i> available to each person escaping to an <i>exit way</i> or <i>final exit</i> shall be appropriate to:</p> <p>(a)The <i>travel distance</i>,</p> <p>(b)The number of occupants,</p> <p>(c)The <i>fire hazard</i>, and</p> <p>(d)The <i>fire safety systems</i> installed in the <i>firecell</i>.</p> | |

C1.3.2 The number of *exitways* or *final exit* available to each person shall be appropriate to:

- (a)The *open path travel distance*,
- (b)The *building height*,
- (c)The number of occupants,
- (d)The *fire hazard*, and the *fire safety system* installed in the *Type 1 Building*.

C1.3.3 *Escape routes* shall be:

- (a)Of *adequate* size for the number of occupants,
- (b)Free of obstruction in the direction of escape,
- (c)Of length appropriate to the mobility of the people using them,
- (d)Resistant to the spread of *fire* as required by Clause C2 “Spread of Fire”,
- (e)Easy to find as required by Clause F8 “Signs”,
- (f)Provided with *adequate* illumination as required by Clause F6 “Lighting for Emergency”, and
- (g)Easy and safe to use as required by Clause D1.3.3 “Access Routes”.

Clause C2— SPREAD OF FIRE

| Provisions | Limits on application |
|--|--|
| <p>OBJECTIVE</p> <p>C2.1 The objective of this provision is to:</p> <ul style="list-style-type: none">(a) Safeguard people from injury or illness when evacuating a <i>Type 1 Building</i> during <i>fire</i>.(b) Provide protection to fire service personnel during firefighting operations.(c) Protect adjacent <i>household units</i> and <i>other property</i> from the effects of <i>fire</i>.(d) Safeguard the environment from adverse effects of <i>fire</i>. | <p>Requirement C2. 2(d) applies only to <i>Type 1 Buildings</i> where significant quantities of <i>hazardous substances</i> are stored or processed.</p> |
| <p>FUNCTIONAL REQUIREMENT</p> <p>C2.2 <i>Type 1 Buildings</i> shall be provided with safeguards against <i>fire</i> spread so that:</p> <ul style="list-style-type: none">(a) Occupants have time to escape to a <i>safe place</i> without being overcome by the effects of <i>fire</i>,(b) Firefighters may undertake rescue operations and protect property,(c) Adjacent <i>household units</i> and <i>other property</i> are protected from damage, and(d) Significant quantities of <i>hazardous substances</i> are not released to the environment during <i>fire</i>. | |
| <p>PERFORMANCE</p> <p>C2.3.1 Interior surface finishes on walls, floors, ceilings and suspended <i>building elements</i>, shall resist the spread of <i>fire</i> and limit the generation of toxic gases, smoke and heat, to a degree appropriate to:</p> <ul style="list-style-type: none">(a) The <i>travel distance</i>,(b) The number of occupants,(c) The <i>fire hazard</i>, and(d) The active <i>fire safety systems</i> installed in the <i>Type 1 Building</i>. | |

or

C2.3.2 *Fire separations* shall be provided within *buildings* to avoid the spread of *fire* and smoke to:

- (a) Other *firecells*,
- (b) Spaces intended for sleeping, and
- (c) *Household units* within the same *building* or *adjacent buildings*.

C2.3.3 *Fire separations* shall:

- (a) Where openings occur, be provided with *fire resisting closures* to maintain the *integrity* of the *fire separations* for an *adequate* time, and
- (b) Where penetrations occur, maintain the *fire resistance rating* of the *fire separation*.

C2.3.4 *Concealed spaces* and cavities within *Type 1 Buildings* shall be sealed and subdivided where necessary to inhibit the unseen spread of *fire* and smoke.

Performance C2.3.4 shall not apply to *Detached Dwellings*.

C2.3.5 *External walls* and roofs shall have resistance to the spread of *fire*, appropriate to the *fire load* within the *Type 1 Building* and to the proximity of other *household units* and *other property*.

C2.3.6 Automatic fire suppression systems shall be installed where people would otherwise be:

- (a) Unlikely to reach a safe place in *adequate* time because of the number of storeys in the *Type 1 Buildings*,
- (b) Required to remain within the *Type 1 Building* without proceeding directly to a *final exit*, or where the *evacuation time* is excessive,
- (c) Unlikely to reach a *safe place* due to confinement under institutional care because of mental or physical disability, illness or legal detention, and the *evacuation time* is excessive,

- (d) At high risk due to the *fire load* and *fire hazard* within the *building*.

C2.3.7 Air conditioning and mechanical ventilation systems shall be constructed to avoid circulation of smoke and *fire* between *firecells*.

C2.3.8 Where an automatic smoke control system is installed, it shall be constructed to:

- (a) Avoid the spread of *fire* and smoke between *firecells*, and
- (b) Protect *escape routes* from smoke until the occupants have reached a *safe place*.

C2.3.9 The *fire safety systems* installed shall facilitate the specific needs of fire service personnel to:

- (a) Carry out rescue operations, and
- (b) Control the spread of *fire*.

C2.3.10 Environmental protection systems shall ensure a low probability of *hazardous substances* being released to:

- (a) Soils, vegetation or natural waters,
- (b) The atmosphere, and
- (c) *Sewers* or public *drains*.

Performance C2.3.10 applies only to *Type 1 Buildings* where significant quantities of *hazardous substances* are stored or processed.

Clause C3— STRUCTURAL STABILITY DURING A FIRE

Provisions

Limits on application

OBJECTIVE

C3.1 The objective of this provision is to:

- (a) Safeguard people from injury due to loss of structural stability during fire, and
- (b) Protect *household units* and *other properties* from damage due to structural instability caused by *fire*.

FUNCTIONAL REQUIREMENT

C3.2 *Type 1 Buildings* shall be constructed to maintain structural stability during *fire* to:

- (a) Allow people *adequate* time to evacuate safely
- (b) Allow fire service personnel *adequate* time to undertake rescue and firefighting operations.
- (c) Avoid collapse and consequential damage to adjacent *household units* or *other property*.

PERFORMANCE

C3.3.1 Structural elements of the *Type 1 Buildings* shall *have fire resistance* appropriate to the function of the elements, the *fire load*, the *fire intensity*, the *fire hazard*, the height of the *building*, and the *fire control* facilities external to and within them.

C3.3.2 Structural elements shall have a *fire resistance* of no less than that of any element to which they provide support within the same *fire cell*.

C3.3.3 Collapse of elements having a lesser *fire resistance* shall not cause the consequential collapse of elements required to have higher *fire resistance*.

Clause C4 — ACCESS & FACILITIES FOR THE FIRE SERVICES

| Provision | Limit on application |
|---|----------------------|
| <p>OBJECTIVE</p> <p>C4.1 The objective of this provision is to:</p> <ul style="list-style-type: none">(a) Provide reasonable facilities to assist <i>fire</i> fighters in the protection of life, and(b) Enable <i>fire</i> appliances to gain access to the building. | |
| <p>FUNCTIONAL REQUIREMENT</p> <p>C4.2.1 <i>Type 1 Buildings</i> shall be designed and constructed so as to provide reasonable facilities to assist <i>fire</i> fighters in the protection of life.</p> <p>C4.2.2 Reasonable provision shall be made within the site of the <i>Type 1 building</i> to enable <i>fire</i> appliances to gain access to the <i>Type 1 building</i>.</p> | |
| <p>PERFORMANCE</p> <p>C4.3.1 There should be sufficient means of external access to enable for <i>fire</i> appliances to be brought near to the <i>Type 1 building</i> for effective use.</p> <p>C4.3.2 There should be sufficient means of access into, and within, the <i>Type 1 building</i> for fire-fighting personnel to effect rescue and fight <i>fire</i>.</p> <p>C4.3.3 The <i>Type 1 building</i> should be provided with sufficient internal <i>fire</i> mains and other facilities to assist fire-fighters in their tasks.</p> <p>C4.3.4 The <i>Type 1 building</i> shall be provided with <i>adequate</i> means for venting heat and smoke from a <i>fire</i> in a basement.</p> | |

Clause D1— ACCESS ROUTES

Provisions

Limits on application

OBJECTIVE

D1.1 The objective of this provision is to:

- (a) Safeguard people from injury during movement into, within and out of *Type 1 buildings*,
- (b) Safeguard people from injury resulting from the movement of vehicles into, within and out of *Type 1 buildings*, and
- (c) Ensure that *people with disabilities* are able to enter and carry out normal activities and functions within *Type 1 buildings*.

Objective D1.1(c) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act

FUNCTIONAL REQUIREMENT

D1.2.1 *Type 1 Buildings* shall be provided with reasonable and adequate access to enable safe and easy movement of people.

Requirement D1.2.1 shall not apply to *Ancillary buildings* or *Outbuildings*.

D1.2.2 Where a *Type 1 building* is provided with loading or parking spaces, they shall be constructed to permit safe and easy unloading and movement of vehicles, and to avoid conflict between vehicles and pedestrians.

PERFORMANCE

D1.3.1 *Access routes* shall enable people to:

- (a) Safely and easily approach the main entrance of *Type 1 buildings* from the apron or *construction edge* of a *Type 1 building*,
- (b) Enter *Type 1 buildings*,
- (c) Move into spaces within *Type 1 buildings* by such means as corridors, doors, stairs, ramps and lifts,

D1.3.2 At least one *access route* shall have features to enable *people with disabilities* to:

- (a) Approach the *Type 1 building* from the street boundary or, where required to be provided, the *Type 1 building* car park,
- (b) Have access to the internal space served by the principal access, and
- (c) Have access to and within those spaces where they may be expected to work or visit, or which contain facilities for personal hygiene as required by Clause G1 ‘Personal Hygiene’.

D1.3.3 Access routes shall:

- (a) Have *adequate* activity space,
- (b) Be free from dangerous obstructions and from any projections likely to cause an obstruction,
- (c) Have a safe cross fall, and safe slope in the direction of travel,
- (d) Have *adequate* slip-resistant walking surfaces under all conditions of normal use,
- (e) Include stairs to allow access to upper floors irrespective of whether an escalator or lift has been provided,
- (f) Have stair treads, and ladder treads or rungs which:
 - (i) provide *adequate* footing, and
 - (ii) have uniform rise within each flight and for consecutive flights,
- (g) Have stair treads with a leading edge that can be easily seen,
- (h) Have stair treads which prevent children falling through or becoming held fast between treads, where open risers are used,

Performance D1.3.2 shall not apply to *Type 1 Buildings such as Housing, Outbuildings, Ancillary buildings, and to Industrial buildings* where no more than 10 people are employed.

Performance D1.3.3 (h) shall not apply within *Type 1 Buildings such as Industrial buildings, Outbuildings and Ancillary buildings*

- (i) Have smooth, reachable and graspable *handrails* to provide support and to assist with movement along a stair or ladder.
- (j) Have *handrails* to *adequate* strength and rigidity as required by Clause B1 “Structure”.
- (k) Have landing of appropriate dimensions and at appropriate intervals along a stair or ramp to prevent undue fatigue,
- (l) Have landings of appropriate dimensions where a door opens from or onto a stair, ramp or ladder so that the door does not create a hazard, and
- (m) Have any automatically controlled doors *constructed* to avoid the risk of people becoming caught or being struck by moving parts.

D1.3.4 An *accessible route*, in addition to the requirement of clause D1.3.3. shall

- (a) Contain no thresholds or upstand forming a barrier to an unaided wheelchair user
- (b) Have means to prevent the wheel of a wheelchair dropping over the side of the *accessible route*.
- (c) Have doors and related hardware which are easily used.

Performance D1.3.3 (i) shall not apply to isolated steps

Clause D2— MECHANICAL INSTALLATIONS FOR ACCESS

| Provisions | Limits on application |
|--|--|
| <p>OBJECTIVE</p> <p>D2.1 The objective of this provision is to:</p> <ul style="list-style-type: none">(a) Safeguard people from injury and loss of amenity while using mechanical installations for movement into, within and out of <i>Type 1 buildings</i>,(b) Safeguard maintenance personnel from injury while servicing mechanical installations for access, and(c) Ensure that <i>people with disabilities</i> are able to carry out normal activities and processes within <i>Type 1 buildings</i>. | <p>Objective D2.1 (c) shall apply only to those <i>Type 1 buildings</i> which serve the public, <i>buildings</i> designated for Disabled Persons' use and to <i>Type 1 buildings</i> where accessibility is required by any other Act.</p> |
| <p>FUNCTIONAL REQUIREMENT</p> <p>D2.2 Mechanical installations for access into, within and out of <i>Type 1 buildings</i> shall provide for the safe and easy movement of people, and for the safety of maintenance personnel.</p> | |
| <p>PERFORMANCE</p> <p>D2.3.1 Mechanical installations for access shall:</p> <ul style="list-style-type: none">(a) Move people safely, and stop and hold as required for the normal use of the installation, for all loads up to and including 25% in excess of the rated load,(b) Not produce excessive acceleration or deceleration,(c) Be constructed to avoid the likelihood of people falling, tripping, becoming caught, being able to touch or be struck by moving parts, sharp edges or projections, under both normal and reasonably foreseeable abnormal conditions of use,(d) Be constructed to prevent collision between components, or between components and the <i>Type 1 building</i>, | |

- (e) Have a control system that ensures safe abnormal operation in the event of overloading or failure of any single component, and
- (f) Be capable of being isolated for inspection, testing and maintenance.

D2.3.2 Mechanical installations for access shall be provided with:

- (a) *Adequate* control over normal use, to ensure people's safety throughout any operation involving starting, stopping or changing the direction of travel,
- (b) Notification of position, where people are fully enclosed and the installation serves more than two levels,
- (c) *Adequate* lighting and ventilation for both normal and emergency use, and
- (d) Signs as required by Clause F8 "Signs",

D2.3.3 Mechanical installations for access shall, for emergency purposes, be provided with a means of:

- (a) Calling outside help,
- (b) Releasing people safely,
- (c) Safeguarding people from exposure to *hazardous* situations.

D2.3.4 Potentially dangerous equipment shall be located in spaces which:

- (a) Are secure from unauthorised entry and contain only equipment associated with the installation,
- (b) Are appropriately sized and suitably guarded to provide *adequate* safe working areas for maintenance personnel,

- (c) Are provided with *adequate* power and lighting for maintenance, and
- (d) Have an environment that ensures the safe operation of the equipment under all likely conditions of use.

D2.3.5 Mechanical installations on *accessible routes* shall:

- (a) Where the passenger conveyor is manually controlled, provide:
 - (i) controls which are easily identifiable and easy to use,
 - (ii) *adequate* notification that the passenger conveyor has registered a summoning call, and
 - (iii) *adequate* notification that the passenger conveyor has arrived, and of its future direction of travel,
- (b) Where the passenger conveyor is fully enclosed and serves more than two levels, provide an *adequate* means of informing occupants of their location,
- (c) Where appropriate, have doors which:
 - (i) are power operated,
 - (ii) are readily distinguishable from their surroundings, and
 - (iii) Where automatic, remain open sufficiently long to enable *people with disabilities* to pass through.

Clause E1—SURFACE WATER

Limits on application

Provisions

OBJECTIVE

E1.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness, and *other property* from damage, caused by *surface water*, and
- (b) Protect the *outfalls* of drainage systems.

FUNCTIONAL REQUIREMENT

E1.2 *Type 1 Buildings* and *sitework* shall be constructed in a way that protects people and *other property* from the adverse effects of *surface water*.

PERFORMANCE

E1.3.1 *Surface water*, resulting from a storm having a 10% probability of occurring annually and which is collected or concentrated by *Type 1 buildings* or *sitework*, shall be disposed of in a way that avoids the likelihood of damage or nuisance to *other property*.

E1.3.2 *Surface water*, resulting from a storm having a 2% probability of occurring annually, shall not enter *Type 1 buildings*.

E1.3.3 Drainage systems for the disposal of *surface water* shall be constructed to:

- (a) Convey *surface water* to an appropriate *outfall* using gravity flow where possible,
- (b) Avoid the likelihood of blockages,

Performance E1.3.2 shall apply only to *Type 1 Buildings* such as *Housing, Communal Residential* and *Communal Non-residential buildings*

- (c) Avoid the likelihood of leakage, penetration by roots, or the entry of ground water where pipes or lined channels are used,
- (d) Provide reasonable access for maintenance and clearing blockages,
- (e) Avoid the likelihood of damage to any *outfall*, in a manner acceptable to the *network utility operator*, and
- (f) Avoid the likelihood of damage from superimposed loads or normal ground movements.

Clause E2—EXTERNAL MOISTURE

Provisions

Limits on application

OBJECTIVE

E2.1 The objective of this provision is to safeguard people from illness or injury which could result from external moisture entering the *Type 1 building*.

FUNCTIONAL REQUIREMENT

E2.2 *Type 1 Buildings* shall be constructed to provide *adequate* resistance to penetration by, and the accumulation of, moisture from the outside.

PERFORMANCE

E2.3.1 Roofs shall shed precipitated moisture.

E2.3.2 Roofs and exterior walls shall prevent the penetration of water that could cause undue dampness, or damage to *Type 1 building elements*.

E2.3.3 Walls, floors and structural elements in contact with the ground shall not absorb or transmit moisture in quantities that could cause undue dampness, or damage to *Type 1 building elements*.

E2.3.4 *Concealed spaces* and cavities in *Type 1 buildings* shall be constructed in a way which prevents external moisture being transferred and causing condensation and the degradation of *building elements*.

Requirement E2.2 shall not apply to *Type 1 buildings* in which moisture from outside would result in effects which are no more harmful than those likely to arise indoors during normal use.

E2.3.5 Excess moisture present at the completion of *construction*, shall be capable of being dissipated without permanent damage to *building elements*

Clause E3—INTERNAL MOISTURE

Provisions

Limits on application

OBJECTIVE

E3.1 The objective of this provision is to:

- (a) Safeguard people against illness or injury which could result from accumulation of internal moisture, and
- (b) Protect *household units* and *other properties* from damage caused by free water from another occupancy in the same *building*.

FUNCTIONAL REQUIREMENT

E3.2 *Type 1 Buildings* shall be constructed to avoid the likelihood of:

- (a) Fungal growth or the accumulation of *contaminants* on linings and other *building elements*,
- (b) Free water overflow penetrating to an adjoining *household unit*, and
- (c) Damage to *building elements* being caused by presence of moisture.

PERFORMANCE

E3.3.1 *Adequate* ventilation shall be provided to all *habitable spaces*, bathrooms, laundries, and other spaces where moisture may be generated.

E3.3.2 Accidental overflow from *sanitary fixtures* or laundering facilities shall be constrained from penetrating to another occupancy in the same *building*.

Performance E3.3.1 shall not apply to *Type 1 Building* such as *Communal Non-residential, Commercial, Industrial, Outbuildings* or *Ancillary buildings*.

E3.3.3 Floor surfaces of any space containing *sanitary fixtures* or laundering facilities shall be *impervious* and easily cleaned.

E3.3.4 Wall surfaces adjacent to *sanitary fixtures* or laundering facilities shall be *impervious* and easily cleaned.

E3.3.5 Surfaces of *building elements* likely to be splashed or become contaminated in the course of the *intended use* of the *building*, shall be impervious and easily cleaned.

E3.3.6 Water splash shall be prevented from penetrating behind linings or to concealed spaces.

Clause F1—HAZARDOUS AGENTS ON SITE

Provisions

Limits on application

OBJECTIVE

F1.1 The objective of this provision is to safeguard people from injury or illness caused by *hazardous* agents or *contaminants* on a site.

FUNCTIONAL REQUIREMENT

F1.2 *Type 1 Buildings* shall be constructed to avoid the likelihood of people within the *building* being adversely affected by *hazardous* agents or *contaminants* on the site.

PERFORMANCE

F1.3.1 If a site is deemed a contaminated site by the *building consent authority* that site shall be assessed to determine the presence and potential threat of any *hazardous* agents or *contaminants*.

F1.3.2 The likely effect of any *hazardous* agent or *contaminant* on people shall be determined taking account of:

- (a) The *intended use* of the *Type 1 building*,
- (b) The nature, potency or toxicity of the *hazardous* agent or *contaminant*, and
- (c) The protection afforded by the *building* envelope and *building* systems.

Clause F2—HAZARDOUS BUILDING MATERIALS

Provisions

Limits on application

OBJECTIVE

F 2.1 The objective of this provision is to safeguard people from injury and illness caused by exposure to *hazardous building* materials.

FUNCTIONAL REQUIREMENT

F2.2 *Building* materials which are potentially *hazardous*, shall be used in ways that avoid undue risk to people.

PERFORMANCE

F2.3.1 The quantities of gas, liquid, radiation or solid particles emitted by materials used in the *construction of Type 1 buildings*, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.

F2.3.2 Transparent panels capable of being mistaken for an unimpeded path of travel shall be marked to make them visible.

F2.3.3 Glass or other brittle materials with which people are likely to come into contact shall:

- (a) If break on impact, break in a way which is unlikely to cause injury, or
- (b) Resist a reasonably foreseeable impact without breaking, or
- (c) Be protected from impact

Performance F2.3.2 does not apply to *Housing*

Clause F3—HAZARDOUS SUBSTANCES AND PROCESSES

Provisions

Limits on application

OBJECTIVE

F3.1 The objective of this provision is to safeguard people from injury or illness, and *other property* from damage, caused by *hazardous substances* or processes in *buildings*.

FUNCTIONAL REQUIREMENT

F3.2 *Buildings* where *hazardous substances* are stored and *hazardous* processes undertaken, shall be constructed to provide *adequate* protection to people and to *other property*.

PERFORMANCE

F3.3 Spaces in *Type 1 buildings* where *hazardous substances* are stored, handled or used, or where *hazardous* processes are undertaken, shall be located and constructed to protect people, and *other property*, under both normal and reasonably foreseeable abnormal conditions, and shall be provided with:

- (a) Means of restricting unauthorised access,
- (b) Means of preventing *hazardous substances*, or other materials unacceptable to the *network utility operator*, from entering *sewers* or public *drains*,
- (c) Means of allowing the harmless release of pressure where there is a significant risk of explosion occurring,
- (d) Protected ignition sources where flammable or explosive goods are stored,

- (e) Means of rendering harmless by ventilation, containment, dilution, or chemical or biological action, any radioactive, toxic or flammable vapours, gases or materials which may escape from pipes, vessels or containers,
- (f) Impervious, easily cleaned surface finishes on *building elements* likely to be splashed or become contaminated in the course of the *intended use* of the *building*, and
- (g) Signs as required by Clause F8 “Signs”.

Clause F4—SAFETY FROM FALLING

| Provisions | Limits on application |
|---|---|
| <p>OBJECTIVE</p> <p>F4.1 The objective of this provision is to safeguard people from injury caused by falling.</p> <p>FUNCTIONAL REQUIREMENT</p> <p>F4.2 <i>Buildings</i> shall be constructed to reduce the likelihood of accidental fall.</p> <p>PERFORMANCE</p> <p>F4.3.1 Where people could fall 1 metre or more from an opening in the external envelope or floor of a <i>building</i>, or from a sudden change of level within or associated with a <i>building</i>, a barrier shall be provided.</p> <p>F4.3.2 Roofs with permanent access shall have barriers provided.</p> <p>F4.3.3 Barriers shall:</p> <ul style="list-style-type: none">(a) Be continuous and extend for the full extent of the hazard,(b) Be of appropriate height,(c) Be constructed with <i>adequate</i> rigidity,(d) Be of <i>adequate</i> strength to withstand the foreseeable impact of people and, where appropriate, the static pressure of people pressing against them,(e) Be constructed to prevent people from falling through them. | <p>Performance F4.3.1 shall not apply where such a barrier would be incompatible with the <i>intended use</i> of an area, or to temporary barriers on <i>construction</i> sites where the possible fall is less than 3 meters</p> |

Clause F5 – CONSTRUCTION AND DEMOLITION HAZARDS

Provisions

Limits on application

OBJECTIVE

F5.1 The objective of this provision is to safeguard people from injury, and *other property* from damage, caused by *construction* or demolition site hazards.

FUNCTIONAL REQUIREMENT

F5.2 *Construction* and demolition work on *Type 1 buildings* shall be performed in a manner that avoids the likelihood of:

- (a) Objects falling onto people on or off the site,
- (b) Objects falling on property off the site,
- (c) Other hazards arising on the site affecting people off the site and *other property*, and
- (d) Unauthorised entry of children to hazards on the site.

PERFORMANCE

F5.3.1 Suitable *construction* methods shall be used to avoid the likelihood of tools or materials falling onto places where people might be present.

F5.3.2 Where *construction* or demolition work presents a hazard in places to which the public has access, barriers shall be provided and shall:

- (a) Be of appropriate height and *construction* to prevent site hazards from harming traffic or passersby,
- (b) Be difficult to climb,

- (c) Have no opening other than those approved by the *building consent authority* for access and viewing,
- (d) Have no gates or doors which project beyond the approved worksite when opened,
- (e) Contain no projection that would be a hazard to traffic or people, and
- (f) Be clearly marked where the barrier itself may otherwise present a hazard to traffic or passersby.

F5.3.3 Where a *construction* or demolition site contains any hazard which might be expected to attract the unauthorised entry of children, the hazard shall be enclosed to restrict access by children.

F5.3.4 Suitable barriers shall be constructed to provide a safe route for people where lifting equipment creates a risk of accident from objects falling on a place of public access, or where a similar risk results from the height at which *construction* or demolition work is being carried out.

Clause F6—LIGHTING FOR EMERGENCY

Provisions

Limits on application

OBJECTIVE

F6.1 The objective of this provision is to safeguard people from injury due to inadequate lighting being available during an emergency.

FUNCTIONAL REQUIREMENT

F6.2 *Type 1 Buildings* shall be provided with *adequate* lighting within all *escape routes* in an emergency.

PERFORMANCE

F6.3.1 An *illuminance* of 1 lux minimum shall be maintained at floor level throughout *buildings* for a period equal to 1.5 times the *evacuation time*.

F6.3.2 Signs to indicate *escape routes* shall be provided as required by Clause F8 “Signs”.

Requirement F6.2 shall not apply to *Type 1 Buildings* such as *Detached Dwellings, household units* within *Multi-unit Dwellings, Outbuildings* or *Ancillary buildings*.

Performance F6.3.1 shall not apply to *Type 1 Building* spaces infrequently inhabited such as plant rooms, storage areas and service tunnels, and for *Housing*.

Clause F7—WARNING SYSTEMS

Provisions

Limits on application

OBJECTIVE

F7.1 The objective of this provision is to safeguard people from injury or illness due to lack of awareness of an emergency.

FUNCTIONAL REQUIREMENTS

F7.2 *Type 1 Buildings* shall be provided with appropriate means of warning people to escape to a *safe place* in an emergency.

PERFORMANCE

F7.3 A warning system shall consist of a combined *fire* detection and warning system that will alert people in *adequate* time for them to reach a *safe place*.

F7.4 The provision of a warning system shall be appropriate to and dependent on:
(a) The buildings intended use
(b) The buildings floor area
(c) The buildings height

Clause F8—SIGNS

Provisions

OBJECTIVE

F8.1 The objective of this provision is to:

- (a) Safeguard people from injury or illness resulting from inadequate identification of *escape routes*, or of hazards within or about the *Type 1 building*,
- (b) Safeguard people from loss of *amenity* due to inadequate direction, and
- (c) Ensure that *people with disabilities* are able to carry out normal activities and processes within *buildings*.

FUNCTIONAL REQUIREMENT

F8.2 Signs shall be provided in and about *Type 1 buildings* to identify:

- (a) *Escape routes*,
- (b) Emergency related safety features,
- (c) Potential hazards, and
- (d) *Accessible routes* and facilities for *people with disabilities*.

PERFORMANCE

F8.3.1 Signs shall be clearly visible and readily understandable under all conditions of foreseeable use.

F8.3.2 Signs indicating potential hazards shall be provided in sufficient locations to notify people before they encounter the hazard.

F8.3.3 Signs to facilitate escape shall:

- (a) Be provided in sufficient locations to identify *escape routes* and guide people to a *safe place*, and

Limits on application

Objective F8.1 (c) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act.

Requirement F8.2 shall not apply to *Housing* except for *Public Housing*

(b) Remain visible in the event of a power failure of the main lighting supply, for the same duration as required by Clause F6 'Lighting for Emergency'.

F8.3.4 Signs shall be provided in sufficient locations to identify *accessible routes* and facilities provided for *people with disabilities*.

Clause G1—PERSONAL HYGIENE

Provisions

Limits on application

OBJECTIVE

G1.1 The objective of this provision is to:

- (a) Safeguard people from illness caused by infection or contamination,
- (b) Safeguard people from loss of *amenity* arising from the absence of appropriate personal hygiene facilities, and
- (c) Ensure *people with disabilities* are able to carry out normal activities and processes within *Type 1 buildings*.

FUNCTIONAL REQUIREMENT

G1.2 *Type 1 Buildings* shall be provided with appropriate spaces and facilities for personal hygiene.

PERFORMANCE

G1.3.1 *Sanitary fixtures* shall be provided in sufficient number and be appropriate for the people who are intended to use them.

G1.3.2 *Sanitary fixtures* shall be located, constructed and installed to:

- (a) Facilitate *sanitation*,
- (b) Avoid risk of food and water contamination,
- (c) Avoid harbouring dirt or germs,
- (d) Provide appropriate privacy,
- (e) Avoid affecting occupants of adjacent spaces from the presence of unpleasant odours, accumulation of offensive matter, or other source of annoyance,

Objective G1.1 (c) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act.

- (f) Allow effective cleaning,
- (g) Discharge to a plumbing and drainage system as required by Clause G13 ‘Foul Water’ when water-borne disposal is used, and
- (h) Provide a healthy safe disposal system when non-water-borne disposal is used.

G1.3.3 Facilities for personal hygiene shall be provided in convenient locations in *adequate* numbers.

G1.3.4 Personal hygiene facilities provided for *people with disabilities* shall be *accessible*.

Performance G1.3.4 shall not apply to Type 1 Buildings such as Housing, Outbuildings, Ancillary buildings, and to Industrial buildings where no more than 10 people are employed

Clause G2—LAUNDERING

Provisions

Limits on application

OBJECTIVE

G2.1 The objective of this provision is to ensure:

- (a) *Adequate amenities* for people to do laundering, and
- (b) That *people with disabilities* are able to carry out normal activities and processes within *Type 1 buildings*.

Objective G2.1 (b) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act.

FUNCTIONAL REQUIREMENT

G2.2 *Type 1 Buildings* shall be provided with *adequate* space and facilities for laundering.

Requirement G2.2 shall apply only to *Housing*.

PERFORMANCE

G2.3.1 Facilities shall have capacity for the *intended use*, and consist of *fixtures*, or space and services for appliances

G2.3.2 Space and facilities shall be provided within each accommodation unit or may be grouped elsewhere in a convenient location.

Clause G3—FOOD PREPARATION AND PREVENTION OF CONTAMINATION

| Provisions | Limits on application |
|---|--|
| <p>OBJECTIVE</p> <p>G3.1 The objective of this provision is to:</p> <ul style="list-style-type: none"> (a) Safeguard people from illness due to contamination, (b) Enable hygienic food preparation without loss of <i>amenity</i>, and (c) Ensure that <i>people with disabilities</i> are able to carry out normal activities and processes within <i>Type 1 buildings</i>. | <p>Objective G3.1 (c) shall apply only to those <i>Type 1 buildings</i> which serve the public, <i>Type 1 buildings</i> designated for Disabled Persons' use and to <i>Type 1 buildings</i> where accessibility is required by any other Act.</p> |
| <p>FUNCTIONAL REQUIREMENT</p> <p>G3.2.1 <i>Type 1 Buildings</i> shall be provided with space and facilities for the hygienic storage, preparation and cooking of food, that are <i>adequate</i> for the <i>intended use</i> of the <i>building</i>.</p> <p>G3.2.2 <i>Type 1 Buildings</i> used for the storage, manufacture or processing of food, including animal products, shall be constructed to safeguard the contents from contamination.</p> <p>G3.2.3 <i>Type 1 Buildings</i> used for the medical treatment of humans or animals, or the reception of dead bodies, shall be constructed to avoid the spread of contamination from the <i>building</i> contents.</p> | <p>Requirement G3.2.1 shall apply to <i>Type 1 Housing</i>, and where appropriate shall also apply to <i>Type 1 Buildings</i> such as <i>Commercial</i> and <i>Industrial buildings</i> whose <i>intended uses</i> include the manufacture, preparation, packaging or storage of food.</p> |
| <p>PERFORMANCE</p> <p>G3.3.1 Food preparation facilities shall be hygienic and include:</p> <ul style="list-style-type: none"> (a) Space and facilities for food storage, as required by the relevant authority, | <p>Performance G3.3.1 (a) and (b) shall apply to <i>Type 1 Buildings</i> such as <i>Housing</i> and <i>Commercial</i> or <i>Industrial buildings</i> whose <i>intended uses</i> include the handling of food.</p> |

- (b) Means for food rinsing, utensil washing and waste water disposal,
- (c) Means for cooking food, and
- (d) Space and a surface for food preparation.

G3.3.2 Spaces for food preparation and utensil washing shall have:

All *building elements* constructed with materials which are free from *hazardous substances* which could cause contamination to the *building* contents.

G3.3.3 An *adequate* energy supply shall be provided, appropriately located for use by cooking and refrigeration appliances.

G3.3.4 Space and facilities shall be provided within each *household unit*, or grouped elsewhere in a convenient location.

G3.3.5 Where facilities are provided for *people with disabilities* they shall be *accessible*.

G3.3.6 Spaces in *Type 1 buildings* shall be protected from the likelihood of contamination or vermin entering areas used for the storage, processing or preparation of food, and shall have a means of preventing contamination spreading from these areas to other spaces.

Performance G3.3.6 shall apply to *Type 1 Buildings* such as *Commercial* or *Industrial buildings* whose *intended uses* include the handling of food, the medical treatment of humans or animals, the slaughter of animals or the reception of dead bodies.

Clause G4—VENTILATION

Provisions

(e) Poisonous fumes and gases,

OBJECTIVE

G4.1 The objective of this provision is to safeguard people from illness or loss of *amenity* due to lack of fresh air.

FUNCTIONAL REQUIREMENT

G4.2 Spaces within *Type 1 buildings* shall be provided with *adequate* ventilation consistent with their maximum occupancy.

PERFORMANCE

G4.3.1 Spaces within *Type 1 buildings* shall have means of ventilation with *outdoor air* that will provide an *adequate* number of air changes to maintain air purity.

G4.3.2 Mechanical air-handling systems shall be constructed and maintained in a manner that prevents harmful bacteria, pathogens and allergens from multiplying within them.

G4.3.3 *Type 1 Buildings* shall have a means of collecting or otherwise removing the following products from the spaces in which they are generated:

- (a) Cooking fumes and odours,
- (b) Steam from laundering, utensil washing, bathing and showering,
- (c) Odours from sanitary and waste storage spaces,
- (d) Gaseous by-products and excessive moisture from commercial or industrial processes,

Limits on application

- (f) Flammable fumes and gases,
- (g) Airborne particles,
- (h) Bacteria, viruses or other pathogens, or
- (i) Products of combustion.

G4.3.4 Contaminated air shall be disposed of in a way which avoids creating a nuisance or hazard to people and *other property*.

G4.3.5 The quantities of air supplied for ventilation shall meet the additional demands of any fixed *combustion appliances*.

Clause G5—INTERIOR ENVIRONMENT

Provisions

Limits on application

OBJECTIVE

G5.1 The objective of this provision is to:

- (a) Safeguard people from illness caused by excessive air temperature,
- (b) Safeguard people from injury or loss of *amenity* caused by inadequate activity space,
- (c) Ensure that *people with disabilities* are able to carry out normal activities and processes within *Type 1 buildings*.

FUNCTIONAL REQUIREMENT

G5.2.1 *Type 1 Buildings* shall be constructed to provide:

- (a) An *adequate*, controlled interior temperature,
- (b) *Adequate* activity space for the *intended use*, and
- (c) *Accessible* spaces and facilities.

PERFORMANCE

G5.3.1 *Habitable spaces*, bathrooms and recreation rooms shall have provision for maintaining the internal temperature at no higher than acceptable for habitation.

G5.3.2 *Habitable spaces* shall have sufficient space for activity, furniture, and sanitation.

Objective G5.1 (c) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act.

Requirement G5.2.1 (c) shall apply only to *Type 1 buildings* such as *Communal Residential*, *Communal Non-residential*, and *Commercial buildings*.

Clause G6—AIRBORNE AND IMPACT SOUND

Provisions

Limits on application

OBJECTIVE

G6.1 The objective of this provision is to safeguard people from illness or loss of *amenity* as a result of undue noise being transmitted between abutting occupancies.

FUNCTIONAL REQUIREMENT

G6.2 *Building elements* which are common between occupancies shall be constructed to prevent undue noise transmission from other occupancies or common spaces, to the *habitable spaces of household units*.

PERFORMANCE

G6.3.1 Dwelling houses, flats and rooms for the residential purposes shall be designed and constructed in such a way that, they provide *adequate* resistance to sound from other parts of the same building and from adjacent *buildings*.

G6.3.2 Dwelling houses, flats and rooms for the residential purposes shall be designed and constructed in such a way that -

- (a) Internal walls between a bedroom containing a water closet, and other rooms; and
- (b) Internal floors

provide *adequate* resistance to sound

Performance G6.3.2 shall not apply to

- (i) an internal wall which contains a door;
- (ii) an internal wall which separates' an en suite toilet from the associate bedrooms;
- (iii) existing walls and floors in a building which is subjected for a material change of use.

Clause G7—NATURAL LIGHT

Provisions

Limits on application

OBJECTIVE

G7.1 The objective of this provision is to safeguard people from illness or loss of *amenity* due to isolation from natural light and the outside environment.

FUNCTIONAL REQUIREMENT

G7.2 *Habitable spaces* shall provide *adequate* openings for natural light.

PERFORMANCE

G7.3.1 Natural light shall provide *adequate* illuminance for all *habitable spaces*

Requirement G7.2 shall apply only to *Housing*.

Clause G8—ARTIFICIAL LIGHT

Provisions

Limits on application

OBJECTIVE

G8.1 The objective of this provision is to safeguard people from injury due to lack of *adequate* lighting.

FUNCTIONAL REQUIREMENT

G8.2 Spaces within *Type 1 buildings* used by people, shall be provided with *adequate* artificial lighting which, when activated in the absence of sufficient natural light, will enable safe movement and activity.

PERFORMANCE

G8.3.1 *Illuminance* at floor level shall be no less than 20 lux.

G8.3.2 *Illuminance* at activity level shall not be less than that required to carry out intended activity without loss of *amenity*.

Requirement G8.2 shall apply to:

- (a) All *exitways* in *Multi-unit Dwellings, Group Dwellings and Communal Residential, Communal Non-residential, Commercial and Industrial Type 1 buildings*,
- (b) All *access routes* except those in *Outbuildings and Ancillary buildings*, and
- (c) All common spaces within *Multi-unit Dwellings, Group Dwellings, and Communal Residential and Communal Non-residential Type 1 buildings*.

Performance G8.3.1 shall not apply in emergencies, for which *Illuminance* requirements are given in Clause F6 ‘Lighting for Emergency’.

Clause G9—ELECTRICITY

Provisions

Limits on application

OBJECTIVE

G9.1 The objective of this provision is to ensure that:

In *Type 1 buildings* supplied with electricity, the *electrical installation* has safeguards against outbreak of *fire* and personal injury, and

FUNCTIONAL REQUIREMENT

G9.2 Where provided in a *Type 1 building*, *electrical installations* shall be safe for their *intended use*.

PERFORMANCE

G9.3.1 The *electrical installation* shall incorporate systems to:

- (a) Protect people from contact with parts of the installation which are live during normal operation, and to prevent parts of the installation or other *building elements* becoming live during fault conditions,
- (b) Permit the safe isolation of the installation and of electrical fittings and appliances,
- (c) Safeguard people from excessive temperatures resulting from either normal operation of electrical equipment, or from currents which could exceed the installation rating,
- (d) Safeguard people from injury which may result from electromechanical stress in electrical components caused by currents in excess of the installation rating,

- (e) Protect *building elements* from risk of ignition, impairment of their physical or mechanical properties, or function, due to temperature increases resulting from heat transfer or electric arc,
- (f) Operate safely in its intended environment, and
- (g) Safeguard against ignition of the surrounding atmosphere where it is potentially flammable or explosive.

G9.3.2 An *electrical installation* supplying an *essential service* shall:

- (a) Maintain the supply for a time appropriate to that service, and
- (b) Be capable of being isolated from the supply system, independently of the remainder of the installation.

G9.3.3 An *electrical installation* connected to an *electrical supply system* shall contain safeguards which protect the safety features of the external supply.

G9.3.4 In *Type 1 buildings* intended for use by *people with disabilities*, light switches and plug socket outlets shall be *accessible* and usable.

Performance G9.3.4 shall not apply to *Type 1 Buildings* such as Housing, *Outbuildings*, *Ancillary buildings*, and to *Industrial buildings* where no more than 10 people are employed.

Clause G10—PIPED SERVICES

| Provisions | Limits on application |
|--|-----------------------|
| OBJECTIVE | |
| G10.1 The objective of this provision is to safeguard people from injury or illness caused by extreme temperatures or <i>hazardous substances</i> associated with <i>building services</i> . | |
| FUNCTIONAL REQUIREMENT | |
| G10.2 In <i>Type 1 buildings</i> provided with potentially <i>hazardous</i> services containing hot, cold, flammable, corrosive or toxic fluids, the installations shall be constructed to provide <i>adequate</i> safety for people. | |
| PERFORMANCE | |
| G10.3.1 Piping systems shall be constructed to avoid the likelihood of: | |
| (a) Significant leakage or damage during normal or reasonably foreseeable abnormal conditions, (b) Detrimental contamination of the contents by other substances, (c) Adverse interaction between services, or between piping and electrical systems, and (d) People having contact with pipes which could cause them harm. | |
| G10.3.2 Provision shall be made for the ready removal of moisture or condensate in gas pipes. | |
| G10.3.3 Pipes shall be protected against corrosion in the environment of their use. | |

G10.3.4 Piping systems shall be identified with markings if the contents are not readily apparent from the location or associated equipment.

G10.3.5 Enclosed spaces shall be constructed to avoid the likelihood of accumulating vented or leaking gas.

G10.3.6 Piped systems shall have isolation devices which permit the installation or individual items of apparatus to be isolated from the supply system, for maintenance, testing, fault detection and repair.

Clause G11—GAS AS AN ENERGY SOURCE

Provisions

Limits on application

OBJECTIVE

G11.1 The objective of this provision is to:

- (a) Safeguard people from injury arising from the use of gas as an energy source,
- (b) Safeguard people and *other property* from the risk of *fire* or explosion, and
- (c) Safeguard people from loss of *amenity* due to the gas supply being inadequate for the *intended use*.

FUNCTIONAL REQUIREMENT

G11.2 In *Type 1 buildings* where gas is used as an energy source, the supply system shall be safe and *adequate* for its *intended use*.

PERFORMANCE

G11.3.1 Supply systems shall be constructed to maintain a safe pressure range appropriate to the appliances and the type of gas used.

G11.3.2 The gas supply to all appliances in a single ventilated space, shall be fitted with an automatic cut-off activated by failure of any continuous forced ventilation system used for combustion, ventilation or safe operation of a fixed gas appliance.

G11.3.3 A flued fixed gas appliance shall have no adverse interaction with any other flued appliance.

G11.3.4 Supply systems shall have isolation devices which permit the whole installation, or individual items of apparatus, to be isolated from the supply for maintenance, testing, fault detection or repair.

G11.3.5 Where gas is supplied from an external source, the supply system within *buildings* shall be constructed to avoid the likelihood of:

- (a) Contamination of the external supply from other gas sources within the *building*,
- (b) Adverse effects on the pressure of the external supply, and
- (c) The external supply pipe acting as an earthing conductor.

G11.3.6 The location and installation of meters and service risers shall meet the requirements of the *network utility operator*.

Clause G12—WATER SUPPLIES

Provisions

Limits on application

OBJECTIVE

G12.1 The objective of this provision is to:

- (a) Safeguard people from illness caused by infection from contaminated water or food,
- (b) Safeguard people from injury due to the explosion of a pressure vessel or from contact with excessively hot water,
- (c) Ensure that people with disabilities are able to carry out normal activities and functions within *Type 1 buildings*.

FUNCTIONAL REQUIREMENT

G12.2 *Type 1 Buildings*, provided with drinking water outlets, *sanitary fixtures* or *sanitary appliances*, shall have a safe and *adequate* piped water supply.

PERFORMANCE

G12.3.1 Piped water supplies intended for human consumption, food preparation, utensil washing or oral hygiene shall be potable.

G12.3.2 Piped water supply and outlets provided with non-potable water shall be clearly identified.

G12.3.3 *Sanitary fixtures* and *sanitary appliances* shall be provided with hot water when intended to be used for:

- (a) Utensil washing, and
- (b) Personal washing, showering or bathing.

Objective G12.1 (c) shall apply only to those *Type 1 buildings* which serve the public, *Type 1 buildings* designated for Disabled Persons' use and to *Type 1 buildings* where accessibility is required by any other Act.

G12.3.4 Where hot water is provided to *sanitary fixtures* and *sanitary appliances*, used for personal hygiene, it shall be delivered at a temperature which avoids the likelihood of scalding.

G12.3.5 *Water supply systems* shall be installed in a manner which:

- (a) Avoids the likelihood of potable water contamination within both the system and the *water main*,
- (b) Provides water to *sanitary fixtures* and *sanitary appliances* at flow rates which are *adequate* for the correct functioning of those *fixtures* and appliances under normal conditions,
- (c) Avoids the likelihood of leakage,
- (d) Allows reasonable access for maintenance of mechanical components, and
- (e) Allows the system and any backflow prevention devices to be isolated for testing and maintenance.

G12.3.6 Vessels used for producing or storing hot water shall be provided with safety devices which:

- (a) Relieve excessive pressure during both normal and abnormal conditions, and
- (b) Limit temperatures to avoid the likelihood of flash steam production in the event of rupture.

G12.3.7 Storage water heaters shall be capable of being controlled to produce, at the outlet of the storage water heater, an *adequate* daily water temperature to prevent the growth of legionella bacteria.

G12.3.8 Water supply taps shall be *accessible* and usable for *people with disabilities*.

Performance G12.3.8 shall not apply to *Type 1 Buildings* such as *Housing, Outbuildings, Ancillary buildings*, and to *Industrial buildings* where no more than 10 people are employed.

Clause G13—FOUL WATER

Provisions

Limits on application

OBJECTIVE

G13.1 The objective of this provision is to:

- (a) Safeguard people from illness due to infection or contamination resulting from personal hygiene activities, and
- (b) Safeguard people from loss of *amenity* due to the presence of unpleasant odours or the accumulation of offensive matter resulting from *foul water* disposal.

FUNCTIONAL REQUIREMENT

G13.2 *Type 1 Buildings*, in which *sanitary fixtures* and *sanitary appliances* using water-borne waste disposal are installed, shall be provided with an *adequate* plumbing and drainage system to carry *foul water* to appropriate *outfalls*.

PERFORMANCE

G13.3.1 The *plumbing system* shall be constructed to:

- (a) Convey *foul water* from *Type 1 buildings* to a drainage system,
- (b) Avoid the likelihood of blockage and leakage,
- (c) Avoid the likelihood of foul air and gases entering *buildings*, and
- (d) provide reasonable access for maintenance and clearing blockages.

G13.3.2 The drainage system shall:

- (a) Convey *foul water* to an appropriate *outfall*,
- (b) Be constructed to avoid the likelihood of blockage,
- (c) Be supported, jointed and protected in a way that will avoid the likelihood of penetration of roots or the entry of ground water,
- (d) Be provided with reasonable access for maintenance and clearing blockages,
- (e) Be ventilated to avoid the likelihood of foul air and gases accumulating in the drainage system and *sewer*, and
- (f) Be constructed to avoid the likelihood of damage from superimposed loads or normal ground movement.

G13.3.3 Where a *sewer* connection is available, the drainage system shall be connected to the *sewer*, and the connection shall be made in a manner that avoids damage to the *sewer* and is to the approval of the *network utility operator*.

G13.3.4 Where no *sewer* is available, an *adequate* on-site disposal system shall be provided for *foul water* in the same manner as detailed in clause G14 “Industrial Liquid Waste”.

Clause G14—INDUSTRIAL LIQUID WASTE

Provisions

Limits on application

OBJECTIVE

G14.1 The objective of this provision is to safeguard people from injury or illness caused by infection or contamination resulting from industrial liquid waste.

FUNCTIONAL REQUIREMENT

G14.2 *Buildings*, in which industrial liquid waste is generated shall be provided with *adequate* spaces and facilities for the safe and hygienic collection, holding, treatment and disposal of the waste.

PERFORMANCE

G14.3.1 Industrial liquid waste shall be conveyed to storage containers and within disposal systems in a way which will:

- (a) Transfer wastes from *buildings* safely and hygienically,
- (b) Avoid the likelihood of blockage and leakage,
- (c) Avoid the likelihood of foul air and gases entering *buildings*, and
- (d) Provide reasonable access for clearing of blockages.

G14.3.2 Facilities for the storage treatment and disposal of industrial liquid waste shall be constructed:

- (a) With *adequate* capacity for the volume of waste and the frequency of disposal,
- (b) With *adequate* vehicle access for collection if required,

- (c) To avoid the likelihood of contamination of any potable water supplies in compliance with Clause G12 “Water Supplies”,
- (d) To avoid the likelihood of contamination of soils, ground water and waterways,
- (e) From materials which are impervious both to the waste for which disposal is required, and to water,
- (f) To avoid the likelihood of foul air and gases accumulating within or entering into *buildings*,
- (g) To avoid the likelihood of unauthorized access by people, and
- (h) To permit easy cleaning and maintenance.

Clause G15—SOLID WASTE

Provisions

Limits on application

OBJECTIVE

G15.1 The objective of this provision is to safeguard people from injury or illness caused by infection or contamination from solid waste.

FUNCTIONAL REQUIREMENT

G15.2 *Buildings* shall be provided with space and facilities for the collection, and safe hygienic holding prior to disposal, of solid waste arising from the *intended use* of the *buildings*.

PERFORMANCE

G15.3.1 Where provision is made within *buildings* for the collection and temporary holding of solid waste, the spaces provided shall be:

- (a) Of sufficient size for the volume of waste and frequency of disposal,
- (b) Provided with reasonable access for the depositing and collection of the waste,
- (c) Capable of maintaining sanitary conditions having regard to the types of waste and storage containers, and
- (d) Capable of maintaining the appropriate temperature for the type of waste stored.

G15.3.2 Where a rubbish chute is provided, it shall be located and constructed to:

- (a) Convey the solid waste to an appropriate storage container,
- (b) Avoid the likelihood of blockage or leakage,
- (c) Permit easy cleaning and maintenance,

Requirement G15.2 shall not apply to *Detached Dwellings, household units of Multi-unit Dwellings, Outbuildings* or *Ancillary buildings* if there is independent access or private open space at ground level

- (d) Avoid the likelihood of foul air or gases accumulating or entering the *building*,
- (e) Avoid the likelihood of the spread of *fire* beyond the refuse chute,
- (f) Have openings that allow waste to be safely deposited in the chute, and
- (g) Restrict access by children, animals and vermin.

G15.3.3 Where it is acceptable to the *network utility operator*, solid waste which has been suitably treated for disposal to a *sewer* may be discharged via a *foul water drain* complying with Clause G13 “Foul Water”.

Clause H1—ENERGY EFFICIENCY

Provisions

Limits on application

OBJECTIVE

H1.1 The objective of this provision is to facilitate efficient use of energy.

FUNCTIONAL REQUIREMENT

H1.2 *Buildings*, throughout their lives, shall have provision for ensuring efficient energy use in controlling indoor temperature when that energy is sourced from a public electricity supply, or any other depletable energy resource.

PERFORMANCE

H1.3.1 Where any space within a *building* is intended to have a controlled temperature, *construction of building elements* affecting energy use shall take account of:

- (a) Thermal resistance to heat loss through the *building* envelope,
- (b) Heat gains (including solar radiation) through the *building* envelope,
- (c) Air tightness,
- (d) Control systems for cooling and ventilating.

Performance H1.3.1 shall not apply to *Housing, Outbuildings, Ancillary buildings, or buildings* with a floor area of less than 50 m².