

COFFS HARBOUR CITY COUNCIL



GUIDELINES FOR FENCING OF PRIVATE SWIMMING POOLS

INDEX

		PAGE
1	Definitions	1
2	Council Requirements	1
3	Drainage	3
4	Safety Fences and Gates	3
5	Indoor Swimming Pools	7
6	Temporary Fencing During Installation of Pool	8
7	Design and Construction of Fencing	8
8	Approved Pool Fencing	14
9	Swimming Pool Safety	17

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GUIDELINE FOR FENCING OF PRIVATE SWIMMING POOLS

PREFACE

Coffs Harbour City Council wishes to emphasise that protection measures or safety equipment for private swimming pools cannot be substituted for parental supervision and vigilance insofar as young children are concerned.

Young children, particularly those of the pool user's family, should be taught to float and swim at the earliest possible age and made aware of water safety. Drownings of children typically have two features: silence and speed.

The provision of fencing in accordance with this Code does not eliminate the need for proper adult supervision.

This Code should be read in conjunction with the Swimming Pools Act and Regulations, 1992 and Australian Standard 1926 - 1986. Copies of Australian Standard 1926 - 1986 are available from the Standards Australia, P.O. Box 1055, Strathfield.

1 DEFINITIONS

1.1 Swimming Pool

Means an excavation, structure or vessel:

- (a) That is capable of being filled with water to a depth of 300 mm or more.
- (b) That is solely or principally used, or that is designed, manufactured or adopted to solely or principally used, for the purpose of swimming, wading, paddling or of some other human aquatic activity, and includes a spa pool, tub or the like, but does not include a spa bath, anything that is situated within a bathroom.

1.2 Fence

The assembly of components, natural or otherwise, which forms the intended barrier to the pool, exclusive of any gates.

Note: The fence includes items such as posts and panels, constructed or natural walls, and sides of buildings where they form part of the intended barrier.

1.3 Gate

Any portion of the fencing that is designed to provide an access way through the intended barrier.

1.4 Existing Swimming Pool

Means a swimming pool whose construction or installation had commenced or was completed before 1 August, 1990.

2 COUNCIL REQUIREMENTS

2.1 Building Application

A building application must be lodged with Council prior to the construction or installation of a swimming pool.

The application should be accompanied by any prescribed fees and plans and specifications complying with the following requirements:

Prefabricated above ground pools: At least two copies of a site plan and manufacturer's installation instructions.

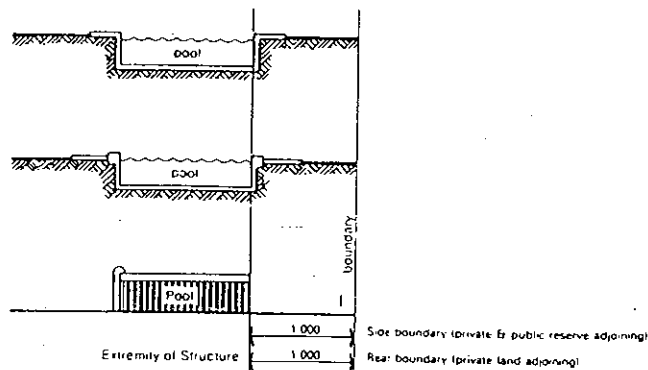
In ground pools and other fabricated above ground pools: At least two copies of a site plan, elevations and levels, and full structural details prepared and certified by a practising Structural Engineer, or a member of the Institution of Engineers of Australia or a person holding equivalent qualification approved by Council.

The site plan must include the lot description and dimensions; the position of other buildings on the site; the distance of the pool from the boundaries measured from the outermost projection of the structure; safety fence location and type of construction; north point and scale; location of drainage. Recommended scales are 1:200 or 1:500.

2.2 Boundary Setbacks

Council's policy for rear and side boundary setbacks for swimming pools is illustrated in Figure A.

If the proposed swimming pool is to be located in front of the dwelling, encroaching the front building line, a building line variation application should be submitted to Council together with the building application.



All building lines and setbacks are measured at right angles to the boundaries.

Figure A
Building Lines and Side/Boundary Setbacks

All building lines and setbacks are measured at right angles to boundaries.

3 DRAINAGE

Waste water is generally from one, or a combination of several of the following sources -

- (a) **Backwashing of filter:** must be discharged into the sewerage system.
- (b) **Vacuuming:** waste water from vacuuming operations to clean the pool must discharge to the sewerage system. This usually occurs as part of the filtration and backwashing process.
- (c) **Emptying of pool:** backwash waters must be directed to the sewerage system, however all other waters are to be discharged to the stormwater system without causing a nuisance to adjoining properties.

4 SAFETY FENCES AND GATES

These requirements meet the provisions of the Swimming Pools Act 1992:

4.1 New Swimming Pools (constructed since 1.8.90)

- **New pools not on very small, large or waterfront properties (see Figures B1, B2, B3)**

Owners of these pools are required to install, at the time of construction, flexible child resistant fencing unless the Council grants an exemption. Perimeter (boundary) fencing and structures within the fenced area are permitted. The owner of the pool can determine the exact location of the fence which need not closely surround the pool in conjunction with Council. However, there must be a fence between the house and the pool, and the pool must be fenced from all adjoining premises whether in public or private ownership.

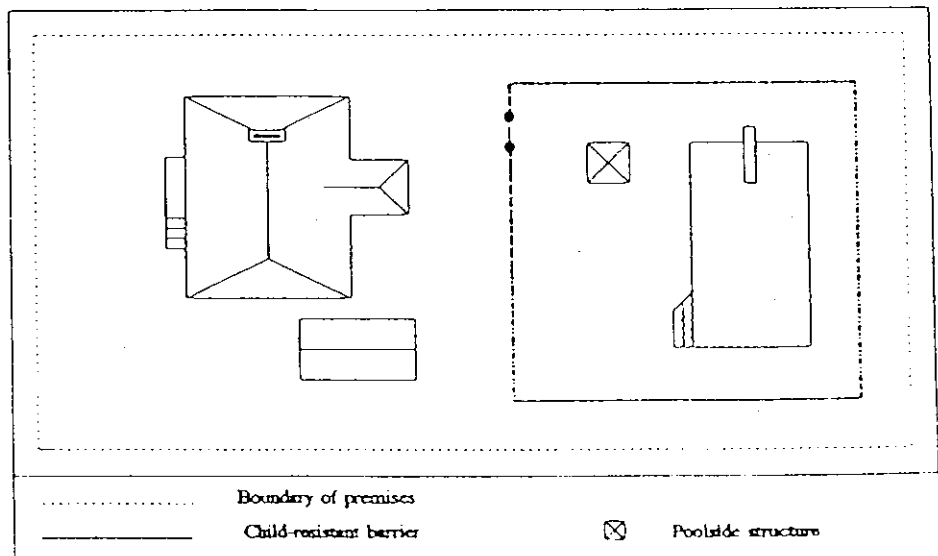


Figure B(1)

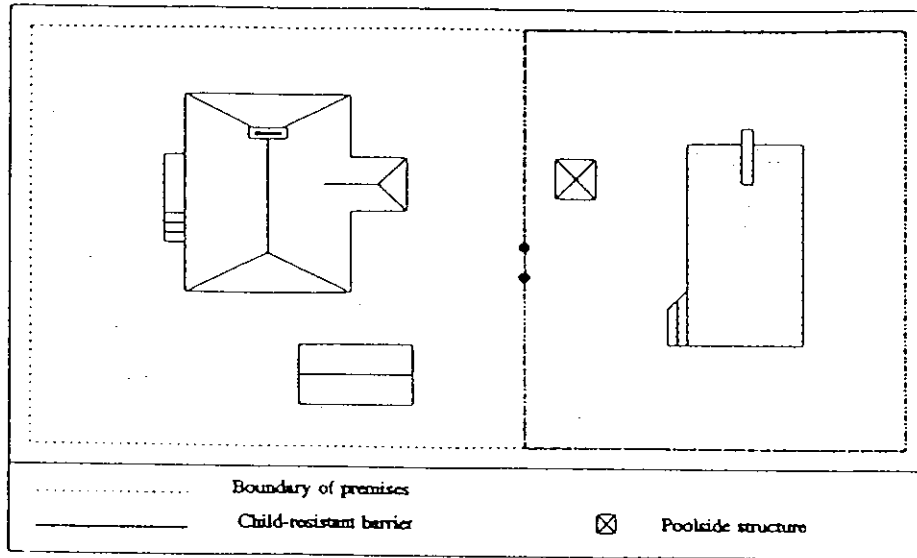


Figure B(2)

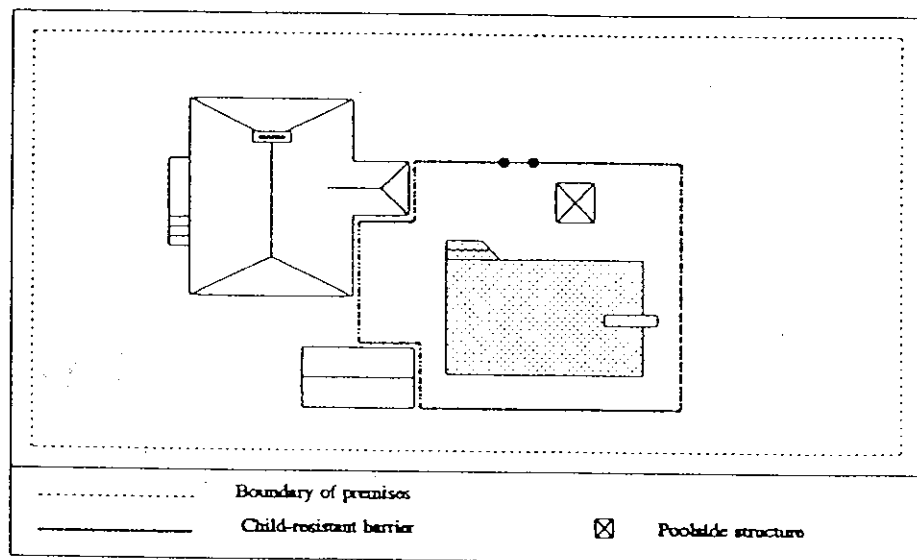


Figure B(3)

- **New pools on very small properties, i.e. less than 230 square metres**

Owners of these pools must install child resistant fencing between the pool and adjoining premises (whether public or private). Between the house and the pool, child safe windows and doors can be used instead of fencing.

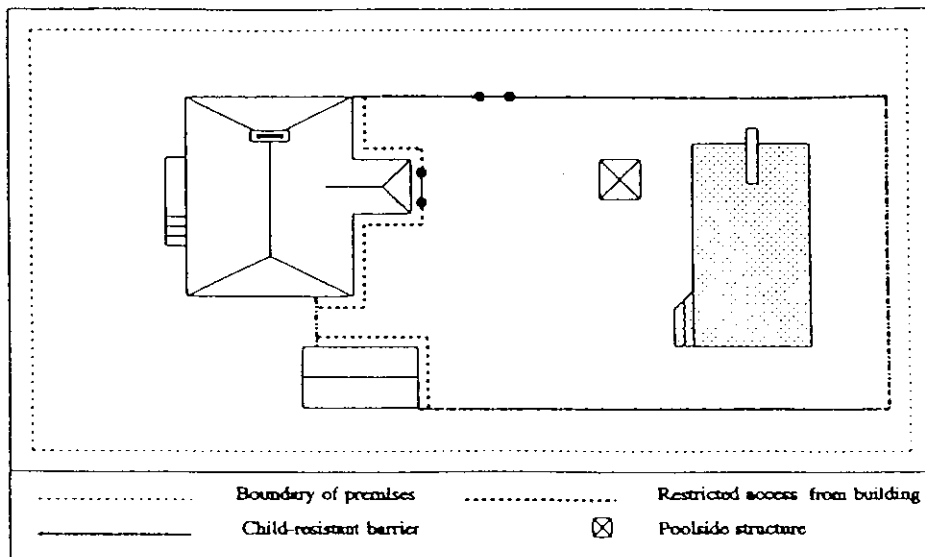


Figure B(4)

- **New pools on large (ie greater than 2 hectares) or waterfront properties**

Where windows and doors to houses on large or waterfront properties are fitted with child safe devices or screens, fencing around the pool or around the property boundaries is not required.

Note: A large property has a minimum area of 2 hectares.

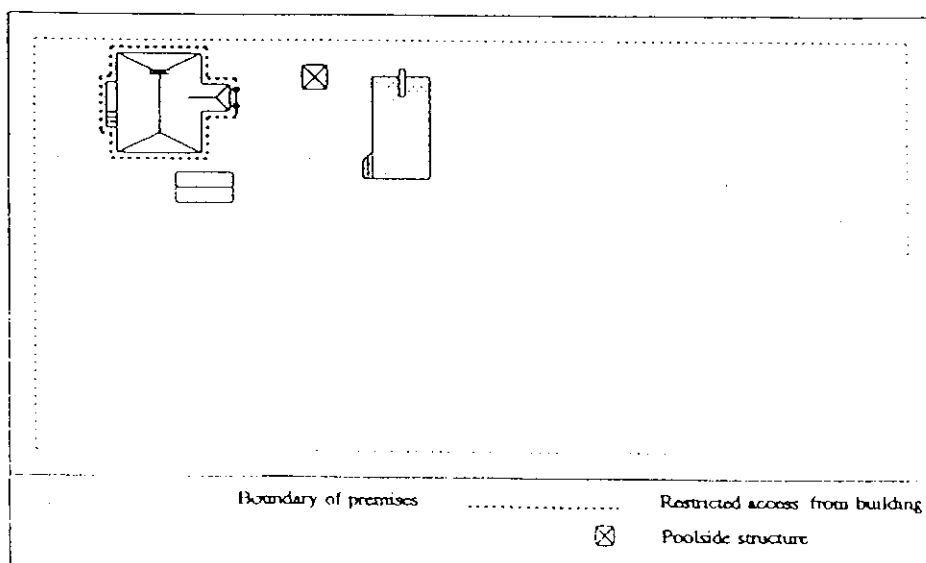


Figure B(5)

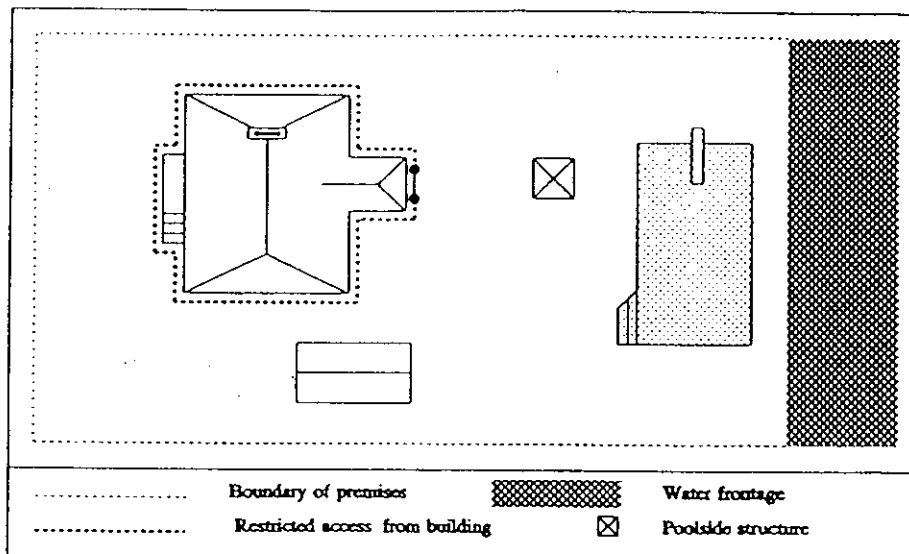


Figure B(6)

4.2 Existing Outdoor Swimming Pools (constructed pre 1.8.90)

The new pool laws provide two options for restricting child access to existing pools.

Option 1

The pool may be surrounded by child resistant fencing. Perimeter (boundary) fencing is permitted (As per Figure B2).

Option 2

Child resistant fencing may be used to separate the pool from any adjoining premises. However as an alternative to fencing between the house and the pool, child safe windows and doors can be used to restrict access to the pool from within the dwelling (Refer Figure C):

- **Existing pools on large or waterfront properties**

Where the pool is situated on a large or waterfront property, it is acceptable to use child safe windows and doors to restrict access to the pool from within the house. No boundary fencing is required.

Note: A large property has a minimum area of 2 hectares.

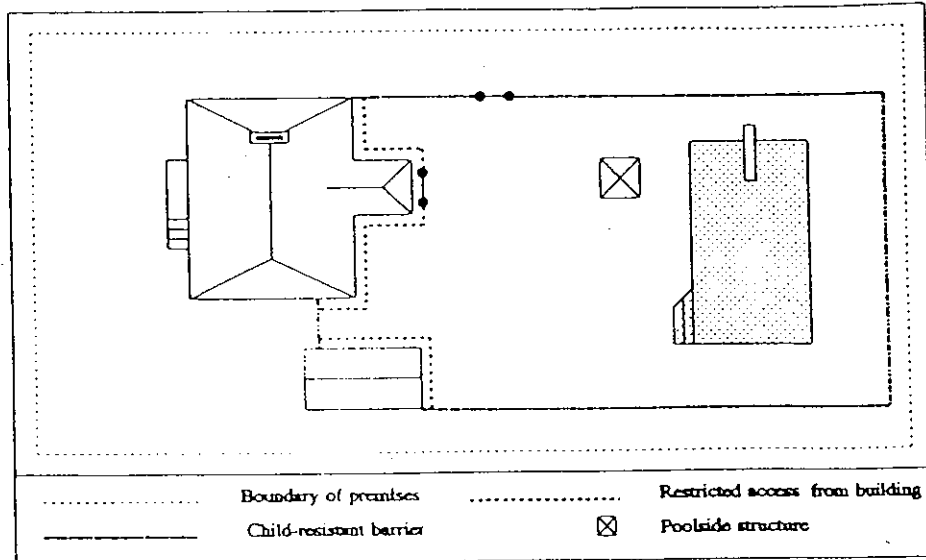


Figure C
Location of child safe barrier for existing pools

5 INDOOR SWIMMING POOLS

5.1 General

That part of a building which contains an indoor swimming pool must be isolated from every other part of the building, and also from external access, by a child safe barrier no less inferior than that required by Australian Standard 1926 - 1986 "Fences and Gates for".

5.2 Door and Gates

- (a) the door (or, if there is a security door in addition to another door, the door nearest the pool) must be a child-safe door and must be kept child-safe by means of a lock, latch, bolt, chain or other child-resistant device located at least 1.5 metres above finished floor level; and
- (b) there must not, on the door or on the door frame, be any footholds wider than 10 millimetres between the release mechanism of the door and any point 100 millimetres above finished floor level.

5.3 Windows

In relation to each window which may provide access to the swimming pool:

- (a) the bottom of the lowest opening panel of the window must (when measured in the closed position) be at least 1.2 metres above finished floor level; and
- (b) there must not be any footholds wider than 10 millimetres between the bottom of the lowest opening panel of the window and any point within 1.1 metres below the bottom of that panel.

Note: This requirement does not apply to a child-safe window or to a window that is totally closed by a child-safe grille.

6 TEMPORARY FENCING DURING INSTALLATION OF POOL

The construction of a pool may present hazards before the pool is completed because of:-

- (a) The danger of injury from falling into the excavation or empty pool.
- (b) The danger of drowning if the excavation contains water e.g. after rain. Accordingly, excavations/empty pools shall be protected by temporary fencing to Council's satisfaction.

The permanent child safe barrier must be installed before water is put into the pool.

7 DESIGN AND CONSTRUCTION OF FENCING

7.1 General

Fences and gates should be so designed and constructed that at any point along their length an effective barrier to children will be provided.

The design and construction requirements specified in this section are therefore aimed at inhibiting access under, over or through the fencing

These fencing provisions apply at all times throughout the life of the pool.

7.2 Materials

All construction materials concerned with safety aspects of the fencing should be of a durable nature and satisfactory for their intended purpose under the conditions prevailing at the site. In particular, they should have a reasonable natural life when exposed to the likely conditions of weather, sunlight, pool chemicals and water.

Materials that could be damaged by tearing, stretching, piercing, cutting or exposure to salt air or water should not be used in locations where such damage would result in a lowering of the effectiveness of the fencing or create a safety hazard to pool users.

7.3 Fencing Height

Fences and gates should have an effective height of at least 1200 mm at any point along their length, measured on the outside of the fencing (Refer Figure D).

The height shall be considered to be effective if a quadrant of radius 1200 mm located as shown in Figure D provides a clear span of 1200 mm to finished ground level, or to any projections from, or objects on, the ground. Fences using perforated materials, mesh (see Clause 7.10) such as chain wire, square or diamond lattice should comprise a vertical section having an effective height of at least 2000 mm topped with an angled section measuring 450 mm which should be inclined to the outside of the fence at an angle of 155 degrees from the vertical [See Figure E]

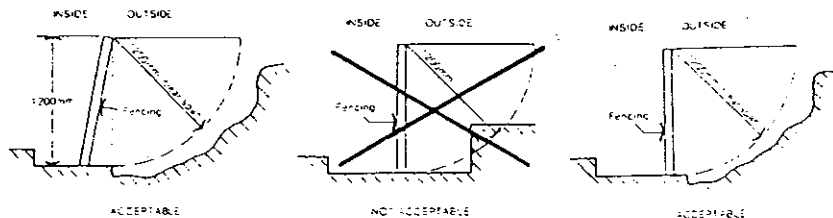


Figure D
Effective fencing height

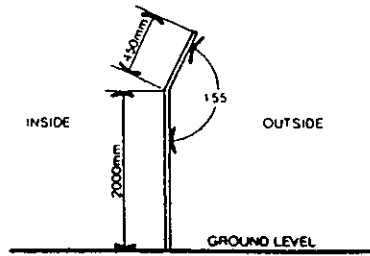


Figure E

Minimum acceptable construction using chain wire or mesh fencing materials having openings greater than 10 mm.

7.4 Ground Clearance

The height of any opening between the bottom of the fencing and finished ground level should not exceed 100 mm.

7.5 Outside Surface

Projections from, or indentations into, the outside surface of the fence or gate, or any combination of projections and indentations, should not form a substantially horizontal surface having a depth greater than 10 mm unless they are spaced at least 900 mm apart and provided that the lower of any projections or indentations is at least 1100 mm below the top of the fence or gate. [See Figure F]

The fence should be vertical, or shall lean away from the pool.

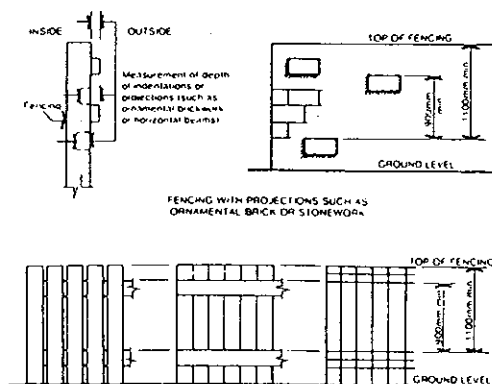


Figure F

Spacing of accessible horizontal members or projections or indentations.

7.6 Horizontal Member

All fencing components providing a substantially horizontal surface, such as rails, rods, wires or bracings, that could be used as holds for climbing should be placed on the inside of the fencing.

Where these parts are located on the outside of the fencing or where vertical members are spaced and provide openings of more than 10 mm width, the following requirements will apply:

7.6.1 The horizontal members should be a minimum of 900 mm apart. Where there are two or more horizontal members, this measurement is made from the top surface of the highest member to the top surface of the lowest upper member. [See Figure F]

7.6.2 The top surface of the highest lower horizontal member should be at least 1100 mm below the top of the fence or gate. [See Figure F]

7.6.3 Any nearby horizontal surfaces permanently located near the inside of the fencing should be separated from the fencing by a distance of at least 300 mm.

7.7 Vertical Members

The spacing between any adjacent members, such as palings, rods or wires, should not exceed 100 mm at any point, provided members do not deflect more than 10 mm

7.8 Stepped Fencing

In the case of fences adjacent to changes in the level of the site it is necessary to provide protection to the unreturned end of the fence on the higher level. A solid semi-circular panel with a diameter of at least 600 mm or extension of the fence down to the lower level is required. In both cases the materials and construction requirements are to comply with the requirements of this Code. This form of construction will maintain the required minimum effective fencing height.

7.9 Gate Fittings

7.9.1 General

In addition to meeting the requirements for fencing as specified in Clauses 7.1 to 7.7 gates, irrespective of type or style, and their fittings should comply with the requirements of Clause 7.6.1.

It should be noted that generally only one (1) gate will be permitted within the pool fence area.

7.9.2 Mounting of Gates

Gates should be so mounted that:

- (a) they are clear of any obstruction that could hold the gate open; and
- (b) when lifted upward or pulled downward, their movement does not release the latching device, unhinge, or provide a ground clearance greater than 100 mm.
- (c) they open out, away from the pool area.

7.9.3 Latching Device

Gates should be fitted with a self-latching device that will automatically operate on the closing of the gate, and will prevent the gate from being reopened without manually releasing the mechanism.

The latching device should be located and shielded in accordance with Clauses 7.9.4, 7.9.5 and 7.9.6.

7.9.4 Location of the Latching Device

Where the release of the latching device is located at a height less than 1500 mm above finished ground level or where the latch itself is located at a height less than 1500 mm above finished ground level and is capable of being released at the mechanism, the location of the latching device and its release should:

- (a) Be on the inside of the fence.

- (b) Be in such a position that to release the mechanism from the outside it will be necessary to reach over or through the fence at a height greater than 1200 mm above finished ground level, and
- (c) Be at least 150 mm below the top of the fence where a hand hole is not provided, or at least 150 mm away from the edge of any hand hole opening where a hand hole is provided.

The latching device and parts of the fencing to which the gate is attached should be capable of retaining the gate in the closed position tested as prescribed by Australian Standard 1926-1986 "Fences and Gates for Private Swimming Pools".

7.9.5 Shielding of Latching Devices [See Figure G]

Where the release to the latching device is located at a height less than 1500 mm above the finished ground level or where the latch itself is located at a height less than 1500 mm above finished ground level and is capable of being released at the mechanism, the latch and its release should be so shielded that no opening greater than 10 mm occurs within an area bounded by:-

- (a) A horizontal line 1200 mm above finished ground level; and
- (b) A circular or near circular area with a radius of 450 mm from the operating parts of the latch.

Note: The 10 mm limitation on openings includes the horizontal distance between the gate stile and post.

Where it is necessary to have a hand hole in a fence or gate, the bottom of the opening should be at least 1200 mm above finished ground level, and the shielding should be extended up to a horizontal line through the top of the hand hole, or 150 mm above the top of the latch, whichever is the higher.

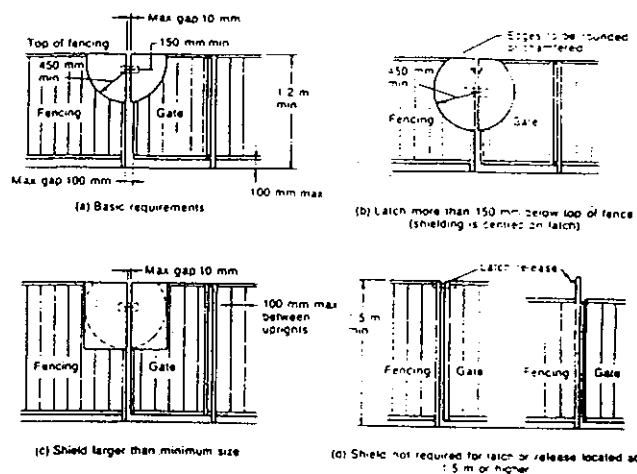


Figure G

Latch shielding for fences of open construction.

7.9.6 Automatic Closing Device

All gates should be fitted with a device that will automatically return the gate to the closed position and operate the latching device.

The closing device should be capable of meeting the following requirements from a stationary start at an open position under the following conditions:

- (a) Under the natural weight of the gate.
- (b) When a mass of 25 kg supported by the top rail is placed at a point not more than 100 mm from the outer edge of the locking stile of the gate.

7.10 Fencing Materials

Perforated materials such as chain wire or lattice having an opening greater than 50 mm should not be used. Where these materials are used and have openings less than 50 mm but greater than 10 mm, the construction of the fence should meet the requirements of Clauses 7.3 and 8.3 of this Guideline.

8 APPROVED POOL FENCING

8.1 Post and Rail construction

Consideration may be given to fences constructed of palings, pickets or galvanised pre-painted steel, fibrous cement (fibro), aluminium or similar profiled wall material.

8.2 Perforated materials, wire mesh or fabric fences

The material must be firmly fixed and tightly strung and where material having openings greater than 10 mm is used, the construction described in Clause 7.3 is to be followed. Material with openings greater than 50 mm should not be used.

8.3 Fabricated metal fences

Fences fabricated from small section steel, aluminium or similar metals shall have vertical members not spaced more than 100 mm apart, and the horizontal members placed a minimum of 900 mm apart. Measurement should be made from the top surface of the highest lower member (assuming the horizontal members to be grouped at the top and bottom of the fence) to the top surface of the highest lower horizontal member should be at least 1100 mm below the top of the fencing.

There shall be a height of at least 900 mm clear of any potential handhold or footholds and any foothold at the bottom of this clear distance should be at least 1100 mm from the top of the fencing.

8.4 Infill panel fences

Fences constructed of glass fibre, reinforced safety glass, timber ply, exterior hardboard or similar sheeting, in framed ledge or panel construction are subject to any horizontal climbing holds being at least 900 mm apart, and the lower of any climbing holds from which the distance is measured is to be at least 1100 mm below the top of the fencing.

The width of any openings shall not exceed 100 mm. The sheet material shall be sufficiently rigid, and adequately fixed to its frame.

8.5 Brickwork or masonry fences

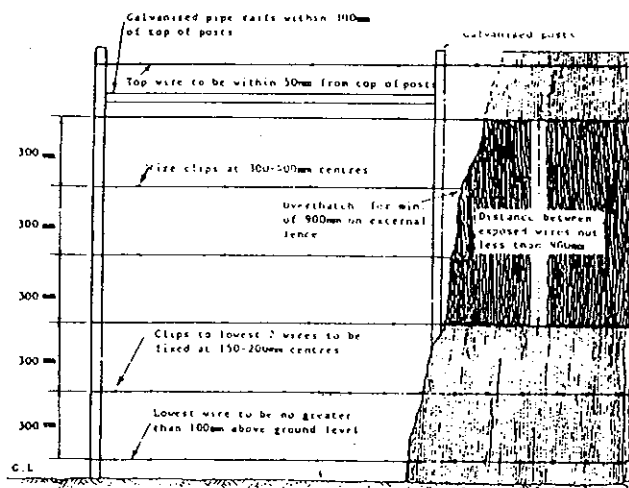
Fences constructed of bricks, blocks or masonry subject to any projections or indentations or combinations of these having a depth greater than 10 mm being spaced at least 900 mm apart, with the lower of any such projections or indentations at least 1100 mm below the top of the fencing

Natural features such as rock face forming part of the fence shall be subject to the requirements of this standard.

8.6 Brushwood Fences

The following specification relates to the construction of a brushwood fence consisting of a basic framework constructed of galvanised steel piping supporting approximately 25 kilograms per square metre of "Melaleuca" sp. brushwood between strands of wire (See Figure H)

8.6.1 Refer to Figure H for specification



Refer to TABLE for PIPE SIZES
BRUSHWOOD FENCING
PIPE SIZES

Fence Height	Vertical Gal. Pipe Supports I.D. mm	Vertical Support Centres	Depth of Concreting Posts in Firm Ground.	Rails I.D.
0 - 2400 mm	40 mm	2400 mm	600 mm	1 @ 20 mm
2400 - 3000 mm	50 mm	2400 mm	600 mm	2 @ 25 mm
3000 - 3500 mm	65 mm	2100 mm	750 mm	2 @ 25 mm

Figure H

9 SWIMMING POOL SAFETY

9.1 Means of Exit from the Pool

Pools should be provided with a ready means of exit from within the pool eg. steps in an inground pool or an internal ladder in an above ground pool to enable children to leave the pool without difficulty. The treads of steps and ladders should have a non slip surface.

9.2 Pool Surrounds

Pool surrounds, including coping, adjacent paving or decking should have a surface finish that is not slippery when wet.

9.3 Resuscitation Charts

An all weather resuscitation chart (supplied by Council at cost) is to be erected in a prominent position within the pool area prior to use of the pool.

9.4 Safety in pool use

To make your pool as safe as possible for exercise, relaxation and enjoyment, the following recommendations should be followed in the day-to-day use of a pool:

- a) Don't leave objects near pool fences that young children could stand on to climb over the fence.
- b) Don't leave young children unattended in a pool, even when they are using flotation type toys or swim aids.
- c) Provide some means with which a non-swimmer can give help to a person in difficulty in the pool. A pole with a blunt hook, or a buoyant aid on a rope is suitable and should be kept near the pool.
- d) Ensure that someone in the household owning or using the pool has a working knowledge of resuscitation methods and first-aid to be applied in cases of apparent drowning.

- e) A durable resuscitation chart must be prominently located in the pool area, and in addition, a list of emergency telephone numbers (doctor, ambulance, police) should be kept on hand. A resuscitation chart is available from Council for a small charge.
- f) Don't leave floating objects in a pool; they can attract young children.
- g) Don't use or leave glass objects near the pool; broken glass is very difficult to locate in a swimming pool.
- h) **DON'T SWIM ALONE, AND DON'T MIX ALCOHOL AND SWIMMING.**
- i) Deep breathing prior to swimming (hyper-ventilation) can cause loss of consciousness when swimming. Don't try to swim long distances under water and don't hyper-ventilate prior to swimming.
- j) Don't swim soon after a large meal.
- k) Don't swim when you are overheated, or overtired, or when the water is very cold.
- l) Don't prop open self-closing gates or leave safety ladders in the pool.
- m) Maintain the security of the pool by regularly checking and oiling the gate latch and self-closing mechanism and making sure that the fence is in good condition.
- n) Always empty splasher or wading pools when they are not being used, and leave them in a position that will not allow water to accumulate in them.
- o) Don't allow running or rough play in pool areas; these may be slippery when wet.
- p) Don't dive or plunge into a pool without first checking the depth.

9.5 For information on the maintenance of pool water quality please refer to "The Fundamentals of Swimming Pool Operation" which is available at Council at no cost.

REFERENCES

- Australian Standard 1926 - 1986
Fences and Gates for Private Swimming Pools
- Australian Standard 2818 - 1986
Guide to Swimming Pool Safety
- Australian Standard 2820 - 1985
Gate Units for Private Swimming Pools
- The Swimming Pools Act, 1992 and Regulations