

SWIMMING POOL SAFETY BARRIER GUIDE & OPTIONS

To Australian Standard AS1926.1-2007 & BCA 2011

Measurements are in millimetres, drawings are not to scale

INTRODUCTION: The Relevant Building Surveyor who has issued the building permit for the pool is responsible authority for interpreting AS1926.1-2007 and associated standards. The Australian Standard AS1926.1-2007 is effective for pools/spas built after 1st May 2010.

The standard requires a 900mm non-climbable zone (NCZ) to be incorporated into the safety barrier all around the pool perimeter. See Non Climbable Zone below. With the introduction of the NCZ, it is now preferable for the horizontal rails of a boundary fence to be located on the neighbours side of the fence rather than on the pool side. There are now no restrictions on the placement of objects on the adjoining property i.e. sheds, trees, dog kennels and BBQ's etc. Effectively what a neighbour does on their property will not affect compliance with AS1926.1-2007. See figure 3 on page 2 for options where horizontal rails are on the pool side of the barrier/fence.

The BCA 2010 requires a safety barrier to be provided between the dwelling and its associated buildings, and the swimming pool. Cubbies, BBQ's or clothes lines etc. are not recommended within the swimming pool safety barrier.

OBJECTIVE: The objective is to create a barrier to restrict the access of young children under the age of 5 years to swimming pools.

MATERIALS: The materials and design for the barrier must be sufficiently strong and rigid to prevent forced entry by a child to the swimming pool area and must comply with Australian Standard AS1926.1-2007. All barriers must be permanent and must remain in good condition and be constructed of durable materials fit for the purpose (intended use).

CHILD RESISTANT DOORSETS & WINDOWS: (not illustrated)

Child Resistant Doorsets are NOT PERMITTED as part of your safety barrier for an outdoor swimming pool.

Child Resistant Windows to be restricted to 100 max opening or to be fitted with a security screen.

Where hinges protrude more than 10mm or the gap between the post and gate is greater than 10mm a 900 min. and a 1000 min. vertical separation is required to prevent hinges climbable.

TYPICAL SAFETY BARRIER:- The minimum height of an internal swimming pool barrier is 1200 measured on the approach side (outside) of the barrier. Refer figure 1. Where the barrier is to be installed on a slope and the fence panels are to be stepped, attention to the distance between the horizontal members of adjoining panels is required.

A 900 NCZ between the horizontal rails on each panel and 1000 Min. to the top must be maintained.

GATES:- Gates installed in the internal barrier must be self closing and self latching with a latch release 1500 high and must open away (outward) from the pool.

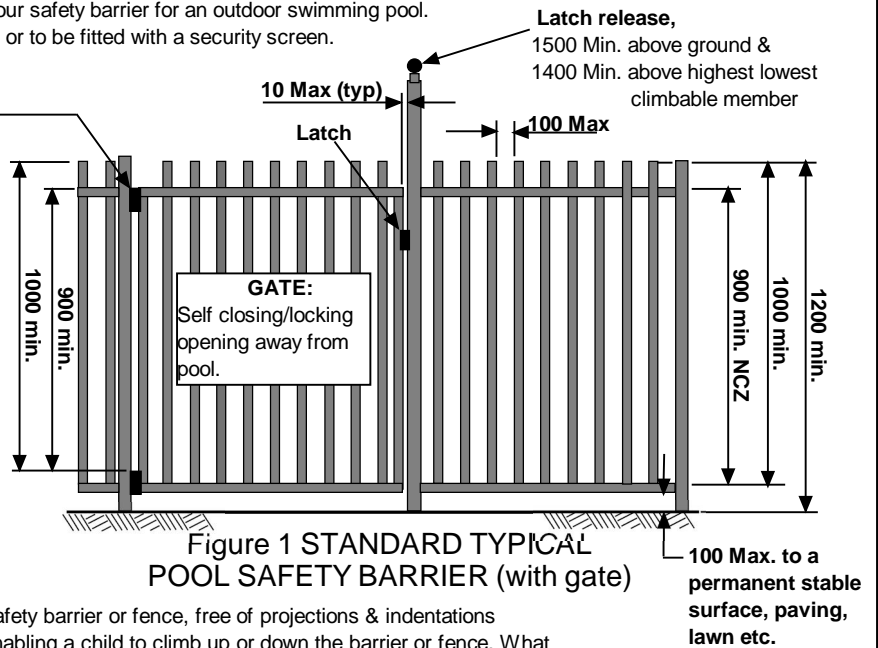


Figure 1 STANDARD TYPICAL POOL SAFETY BARRIER (with gate)

NON CLIMBABLE ZONE (NCZ):

The NCZ is a 900mm high vertical continuous section on the safety barrier or fence, free of projections & indentations greater than 10mm, that can be used as a finger or foothold, enabling a child to climb up or down the barrier or fence. What side of the barrier the NCZ is on and height depends on the type and location of the barrier. For the typical safety barrier (internal pool fence) the 900mm NCZ is measured from the lowest upper climbable member on the outside or approach side, of the fence. See figure 2a. For a boundary fence the 900mm NCZ is measured from the top of the fence on the inside or the poolside, of the fence. See figure 2b

As shown in figures 2a & 2b, the NCZ includes an associated area within a 900 radius. No climbable object, tree or structure with a horizontal surface greater than 10mm is permitted within this area. Note - Climbable objects are not to be placed where the object may compromise the minimum barrier height requirement.

300 NCZ inside of pool safety barrier. Not required where vertical members are less than 10mm apart or where solid type fencing material is used

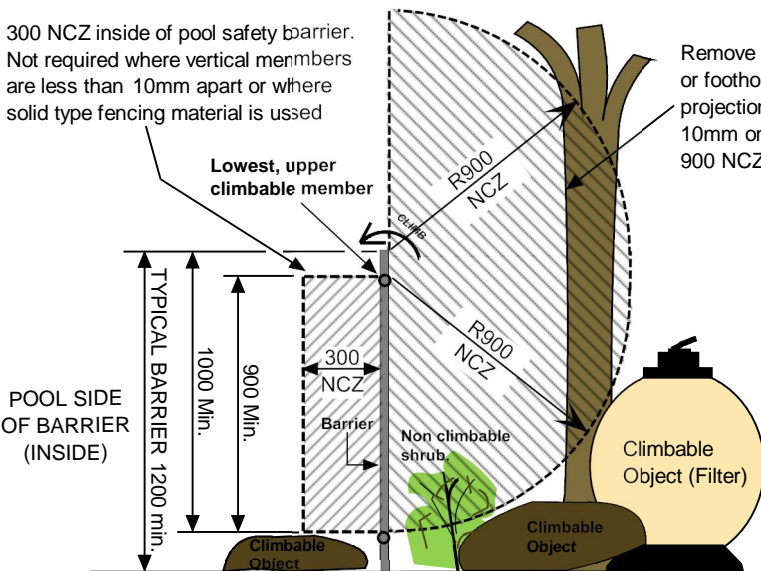
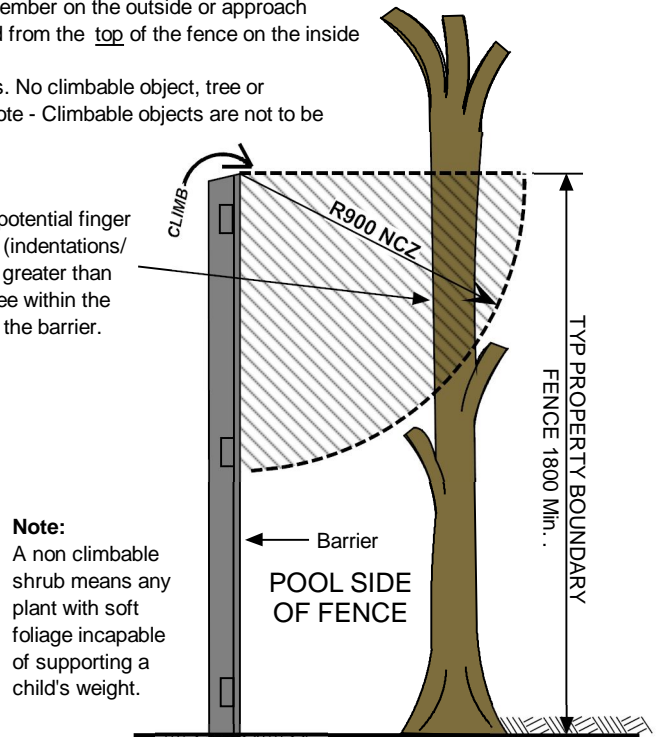


Figure 2a NON CLIMBABLE ZONE TYPICAL SAFETY BARRIER



Note: A non climbable shrub means any plant with soft foliage incapable of supporting a child's weight.

Figure 2b NON CLIMBABLE ZONE PROPERTY BOUNDARY FENCE

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PROPERTY BOUNDARY FENCE:- The minimum height of a boundary fence, paling, colorbond etc, is 1800 measured on the pool side of the fence. The NCZ is measured from the top of the fence. Ideally **Option A** in Figure 3 with the horizontal rails on the neighbours side is the easiest option. Where the horizontal rails are on the pool side of the fence, option B,C, or D can be used where the rails must be made non-climbable.

Option "B" - Provide vertical palings to cover the top and middle rails staggered with 10mm max. gap or a solid type sheeting. Securely fasten with screws or nails (allow for shrinkage in the timber).

Option "C" - Fix a second timber rail on the top rail finishing flush with the top of the fence, to provide the 900 NCZ to the middle rail or the next rail down. Finish flush with the vertical face of the top horizontal rail.

Option "D" - A 60 deg timber splay fixed to the top rail. Fill gaps between the staggered palings above the rail with a timber infill to the top of the fence. No gaps greater than 10mm (allow for shrinkage).

Option "E" - Construct a fence with rails correctly spaced, See figure 5, page 3 for details.

Note: The property boundary fence height may depend on type of intersecting pool barrier used to maintain the 900 NCZ between the top surface of the pool barrier and top surface of the barrier fence. Refer figure 4

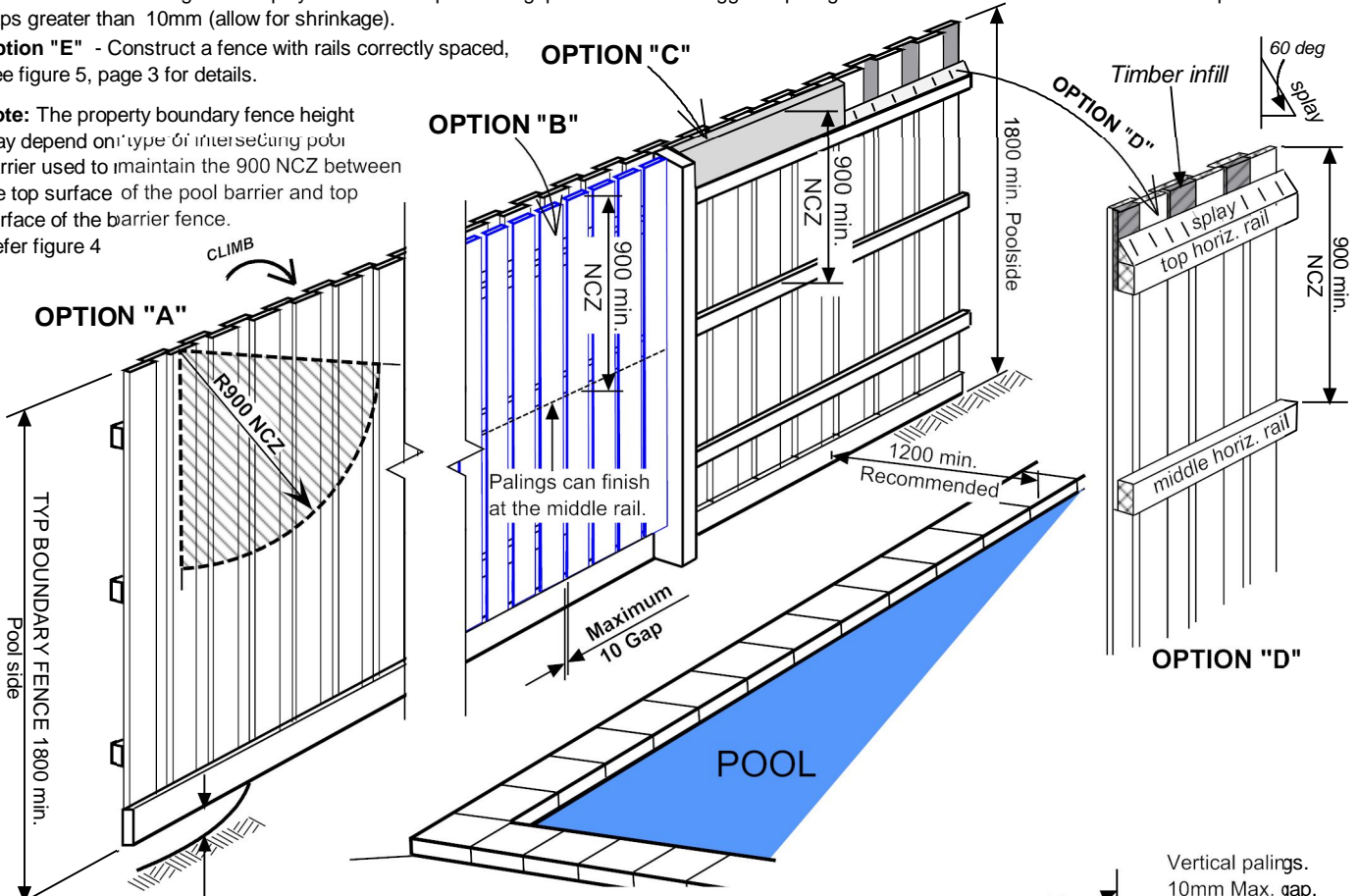


Figure 3 STANDARD BOUNDARY PALING FENCE

BOUNDARY FENCE INTERSECTING WITH POOL BARRIER:

Refer figure 4, a property boundary fence needs to be 2100 high, measured on the pool side, adjacent to an intersecting internal pool barrier, to be able to provide 900 NCZ above an intersecting internal pool barrier (tubular type shown). Protect horizontal rails on the boundary fence within 900mm on both sides of the intersecting internal pool barrier. Provide vertical palings staggered with 10mm max. gap and a 50 x 35 stiffening batten. Securely fasten with screws. Allow for shrinkage in timber.

Note - Refer figure 2a & 4, where typical swimming pool barriers intersect, the horizontal rails need only be protected for 300mm inside the pool barrier. See figure 2a for further reference.

PLEASE NOTE: This Safety Barrier Guide and Options are some examples of methods to help compliance with the Australian Standard for swimming pool safety, AS 1926.1-2007 and BCA 2011. Following this guide does not guarantee compliance nor are options limited to those shown. Please consult your Relevant Building Surveyor and the relevant standard. All fences must comply with Building Regulations. Boundary fencing is regulated by the Fencing Act 1968(VIC). Australian Standard AS1926.1-1993 remains in use for pools and spas built prior to May 1st 2010.

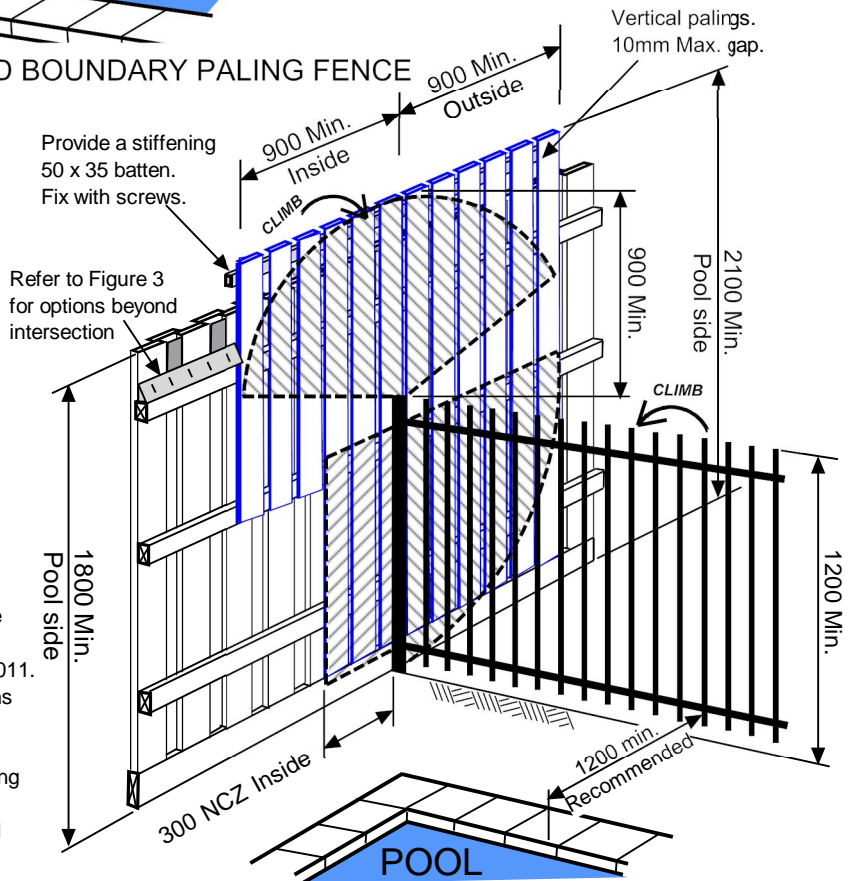


Figure 4 PROPERTY BOUNDARY FENCE INTERSECTING AN INTERNAL POOL BARRIER (Existing Fence)

= Hatched areas denotes NCZ

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Top horizontal rail has been raised to the top of the fence to establish 900 NCZ. Recommended for new fence construction where rails need to be on the poolside.

ALTERNATIVE BOUNDARY FENCE: (fig. 5)
Construct the fence with the top horizontal rail raised to the top of the fence and the middle rail (next rail down) 900 mm below. This will provide the 900 NCZ required.

Where a pool barrier fence intersects with the property boundary fence, raise the height of the intersecting pool barrier to the top of the property boundary fence to 900 min. of the property boundary fence. Note - Vertical members may need to be strengthened or gaps between the members reduced to ensure fence complies with loading requirements.

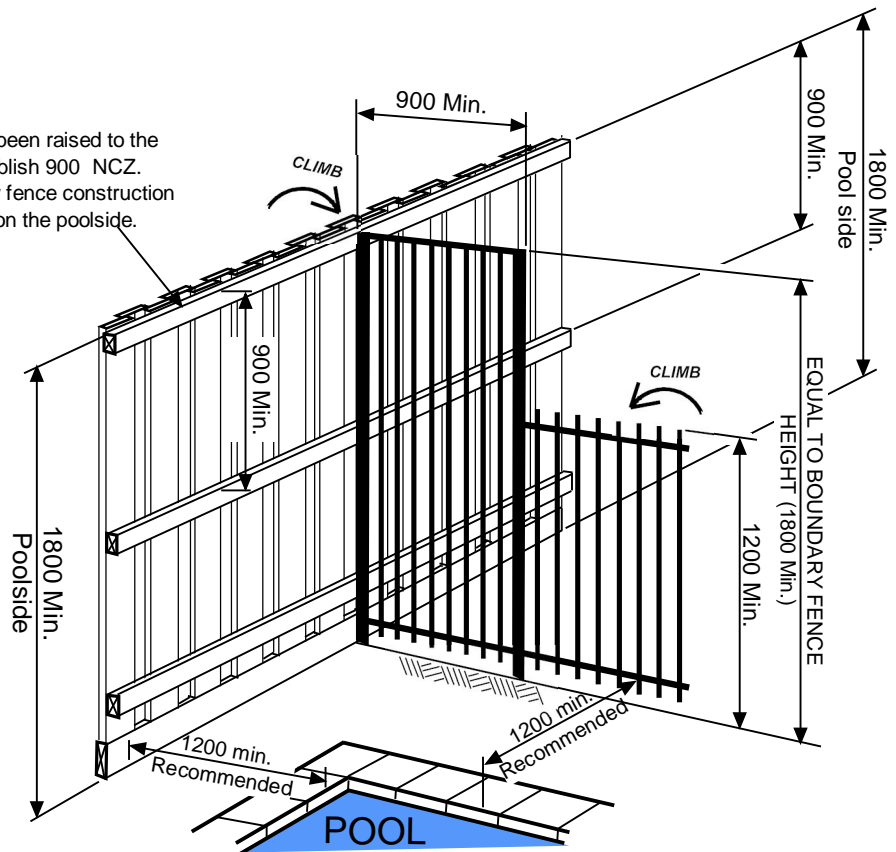


Figure 5 ALTERNATIVE BOUNDARY FENCE INTERSECTING A TYPICAL POOL BARRIER

Note,
Height of property boundary fence at intersection, is dependant on pool safety barrier type, design and NCZ requirements.

Fill any gap between pool barrier and boundary fence to prevent any finger or footholds.

Protect horizontal rails, Option "D" shown.

ALTERNATIVE BOUNDARY FENCE: (fig. 6)
Raise the property boundary fence only, where required, to 900 Min. each way (inside and outside) of the intersecting pool barrier. Protection of the horizontal rails within 900mm of the pool barrier on the outside of the pool barrier will be required and 300mm on the inside of the pool barrier if the pool barrier type has gaps greater than 10mm.

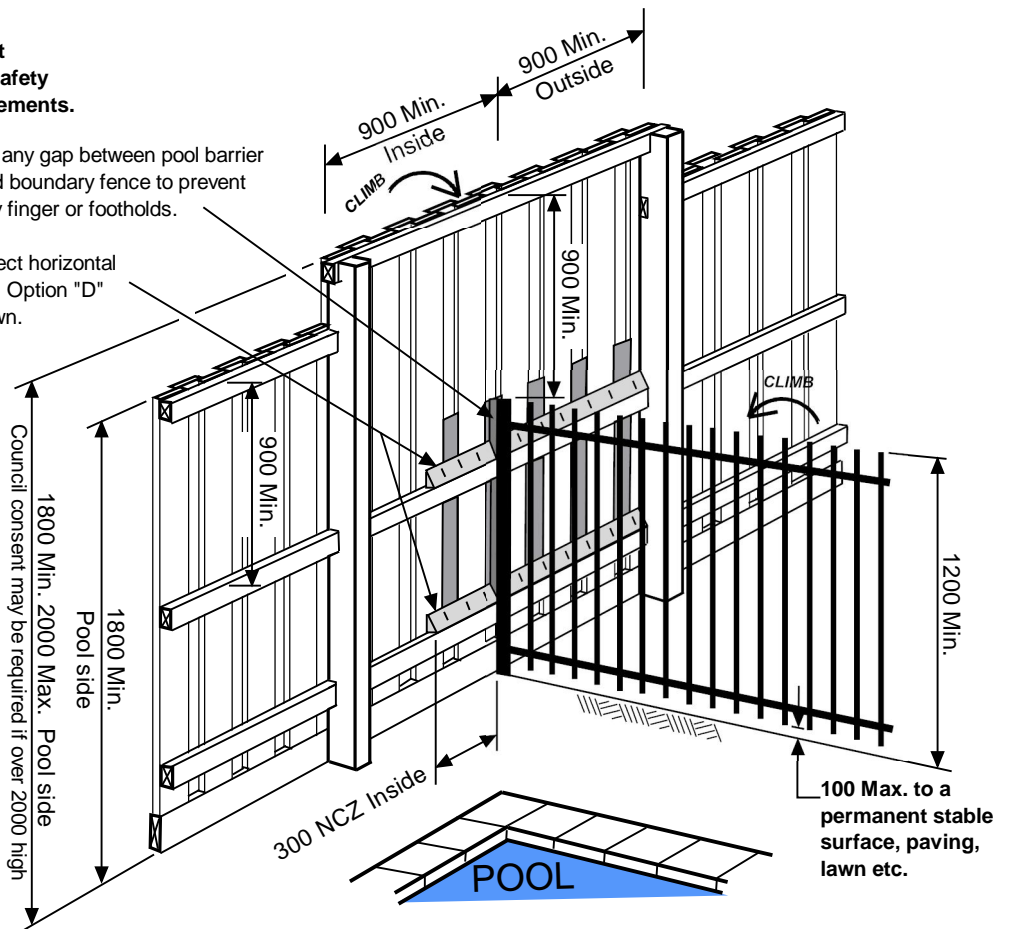


Figure 6 ALTERNATIVE BOUNDARY FENCE INTERSECTING A TYPICAL POOL BARRIER