

Guidelines for the filling in of swimming pools

Where existing swimming pools are to be in filled there are precautions that should be followed so as to allow establishment of planting in the region of the pool, and so as to allow rain water falling on the pool area to drain into the underlying soils.

All in-ground concrete pools constructed since the early 1980's have incorporated into their construction a drainage layer of gravel beneath the pool base and a hydrostatic relief valve. These inclusions allow elevated ground water to drain into the pool if the pool is empty and hence prevent the pool from popping out of the ground.

However, a hydrostatic valve will not allow water to drain from the pool. As soil is heavier than water, if a pool is infilled, the hydrostatic relief valve becomes redundant.

To achieve soft landscaping that will reasonably thrive in most climatic conditions, a minimum 300 mm of soil cover should be provided over any concrete of the pool copings and pool walls. If surface levels are not to be raised, then the top 300 mm of the pool coping and pool walls will have to be demolished.

To provide drainage through the base of the pool, 20 mm drainage holes should be provided at 1.2 m maximum centres in both directions through the base of the pool, and into the underlying gravel drainage layer. A drainage blanket of Bidim A4 should be provided over the entire base of the pool and should be covered with a minimum of 100 mm of clean sand. The Bidim will prevent sand from infiltrating the gravel beneath the pool and will ensure that water percolating through the remainder of the fill in the pool can discharge into the gravel.

If demolished concrete from the pool coping and shell is to be used as part of the backfill materials it should be broken into small pieces (150 mm maximum) and any voids between pieces of concrete should be infilled with sand or other suitable materials.

Clays should not be used for backfilling of the pool shell, as they are difficult to adequately compact, and hence prevent future consolidation and settlements.

Ideally readily compatible granular fill should be utilised.

WHEN TURF IS THE FINISHED SURFACE

A minimum of 300 mm of topsoil should be provided over the general fill materials within the pool and for a nominal 0.5 m all round the pool.

WHEN PAVING IS THE FINISH SURFACE:

Fill should be placed in layers not exceeding 300 mm in loose thickness and should be compacted to 96 percent Standard Density in accordance with AS3798.

The top 300 mm of fill shall be compacted to 98 percent Standard Density in accordance with AS3798.

The proposed paving should be robust enough to withstand minor differential movements in the underlying fill and should incorporate surface drainage connected to a stormwater disposal system.