

Client	-	Sweet Valley Primary School, Constantia
Main contractor	-	Holing Projects
Engineers	-	Ross Holing
Galvanised & Paint Applicator	-	Cape Galvanising
Tons of steel	-	30 tons
Completion date	-	2008

Once the Sweet Valley School committee had decided that they wished to enjoy all year swimming they then discussed a corrosion protection system of the steelwork with the main contractor, as a building had to be erected to protect the swimming pool.

Whilst an indoor swimming pool is heated it allows year round swimming but also provides a very corrosive atmosphere for any steel structures inside the building. This is because although indoors the relative humidity remains very high and the steel does not benefit from drying from sun and wind and remains “wet” for long periods of time. This time of wetness combined with chlorinated salt or chlorine can be extremely corrosive. With this in mind when the school and the contractor contacted Cape Galvanising it was suggested to them that for aesthetic reasons and for extra corrosion protection they should apply an epoxy primer and a polyurethane topcoat to the galvanised steel.

The client was extremely grateful for the advice. The hot dip galvanized coating thickness averaged about 145 microns of Zinc on the structural steel. The hot dip galvanized coating was then chemically cleaned and thoroughly water rinsed. Followed by overcoating with the paint system of about 100 microns DFT of paint.

This resulted in a total coating thickness of in excess of 245 microns of coating protection. Galvanised steel that remains permanently wet also does not offer an attractive finished product as the coating remains very dark with areas of white rust (zinc hydroxide) and a duplex system is deemed to be necessary to brighten up the interior of the building. The lifetime of the duplex coating applied will be in excess of 25 years.

The final coating was also considered by the school staff to be very attractive.

