

OUTDOOR STRUCTURES

Outlasts and outperforms

July 2014 Newsletter

Written by Ted Stubbersfield

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New faces at Outdoor Structures - Left to right Tammy, Nigel and Nick framed by OSA bollards

I would like to say that the changeover from Infrastruction to DeckMaster/Outdoor Structures Australia was trouble free but to be honest there were a few bumps along the way, caused in part by the large number of orders that came in. Nigel Shaw, The owner of Deckmaster has taken steps to rectify the teething problems and has moved staff around and employed extra employees to produce the orders. Already they are looking at bigger premises. While I am still quoting and assisting customers, let me introduce the faces that will increasingly be the contacts you will be dealing with.

Nigel Shaw. I am the director and founder of DeckMaster Australia which is the new owner of Outdoor Structures Australia. I have 20 years experience in the timber industry, formerly the owner of a furniture

manufacturing business. For the past 12 years I have been the managing director of Wilson Timbers and in 2011 I started another business DeckMaster Australia.

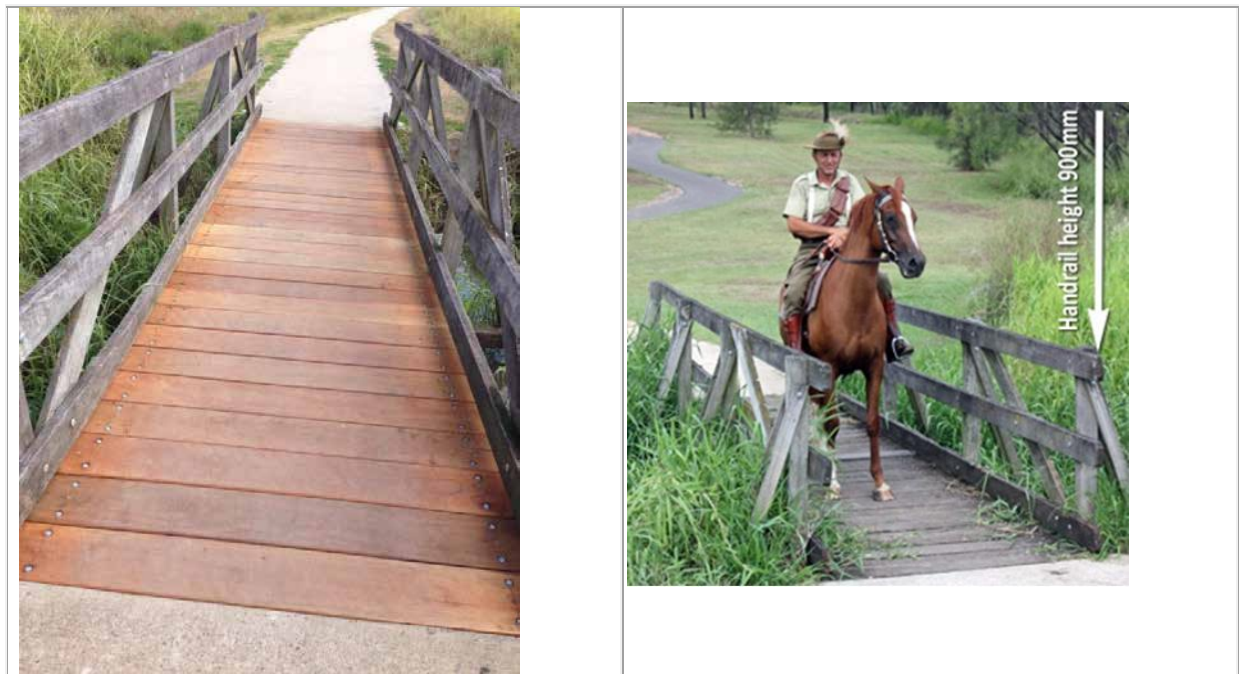
DeckMaster is a specialist wholesale decking manufacturer of concealed fixed residential decking. DeckMaster is now the new owner of Outdoor Structures Australia and I am very excited to incorporate my passion for design and timber. I am looking forward to expressing my creative side and continuing to develop the Outdoor Structures range of product with the help and consultation of Ted Stubberfield. We aim to provide excellent quality and service.

Nick Horan: Hi, I'm Nick Horan. I am part of the Outdoor Structures sales team, and enjoy working towards business development. Previously I have completed a bachelors degree in Urban Design and Planning, and have worked as an intern at Gold Coast City Council in planning and development.

I like working for Outdoor Structures Australia because I deal daily with a wide range of stakeholders to achieve projects that are high quality and extremely durable. If you would like to contact me for sales and other information I am your man! Contact me at Sales@outdoorstructures.com

Tammy Crawford: I am a bright young lady who is part of the Outdoor Structures sales team. I have 4 years experience in the timber industry working for Wilson Timbers in internal sales. I am looking forward to learning the Outdoor Structures product range and getting to know the customers. For any information or sales enquires please do not hesitate to contact me.

Life Expectancy of Deckwood



How long can you expect to receive from a Deckwood deck in full sun? If we look at AS 5604 Timber - Natural durability ratings we are told greater than 40 years but as I re-read the Standard a pink pig just flew past my eyes. That standard does not differentiate between a painted or unpainted finish and

whether it is horizontal or vertical or even what part of Australia it is located. So what can you really hope for?

The Timberlife prediction software, a very useful design tool, does not cover decking. One of the researchers of that software advised me to use 20 to 25 years. It is also our experience. A longer life expectancy of 40 years (in Brisbane with Dur 1 timber) is given in Wood Solutions Timber Service Life Design. [Click here for the link](#). but this refers to replacement caused by decay (Refer to Table 5.4 and Figure 5.6 on pages 36). What generally happens is that durable hardwood decking is not replaced because of decay but because of physical degrade of the top surface.

A good example of this is the small bridge illustrated above which was one of the first I ever built way back in 1985. That is 29 years ago. It is in a park opposite my home and so I have been watching its performance over all this time. The deck planks were ex 200x38. Two and half years ago the deck was quite happy carrying a horse and at that time only one board had been replaced over the intervening 26-27 years. The deck did look as if it needed to be replaced because of surface degrade though appearances and actual performance were different. In recent days it was eventually replaced. So in summary, I say 20-25 years (with just a few boards replaced) is what you would expect in Queensland. Invariably those boards that need replacement will be evident in the first six months.

Good Detailing on Handrails



Back in 2005 I was walking along the Thames embankment near the London Eye when I spotted some handrail that was being replaced. It was originally installed in 1953 for the Queen's coronation. So that is a service life of 52 years. The original handrail had a very neat splice and was being replaced in the same way (illustrated). This held moisture and it eventually decayed at the splice. Beyond the splice the timber was fine. I realised then that the acceptable service life for a piece of timber is 5 to 10 years longer than you actually achieved. The image on the right above is the handrail at the Port of Cairns Authority marina. It is probably the best handrail I have seen and it is not one of mine! The rail itself has a good slope on it to shed moisture and equally important there is a significant gap between each piece so no moisture is held at the join and a finger trap is avoided. Fastening is from underneath. A small centre support is enough to hold the rail from taking a set either up or down,



As I mentioned earlier, I had been watching the bridge opposite my house closely over the years and I noticed that the 50 mm wide handrail eventually started to show signs of degrade. The image above on the left is typical but some areas had more degrade. (The rails were actually replaced last week but I would have just rolled them over). This led me to change the design of all our handrails so that they all shed moisture. You will see this in my Commercial Barrier Guide (only \$22).



Of course, the most effective water shedding handrail is when the top rail is mounted as a diamond. The image on the left is from a heritage listed cricket ground at the Gatton university. The fence is older than me and I am 63. Some rails had failed but most are still sound. We are now adding a diamond top fence to our range of commercial fencing options. They will have a dressed after treating finish. There are two options, one using a 125x125 post with a 100x100 rail and a 75x50 mid rail and the second with a 100x100 post with a 75x75 top rail and a 100x50 mid rail. The product can be customised to suit your needs. Call Nick for pricing on 0415 535 794.



As for the need for fastening from underneath, this image illustrates clearly its shortcomings. The main part of the handrail is fastened from underneath but then and is in good order. An extension was added and top fixed. It has failed. It is not hard to fix from underneath and well worth the extra effort.

Project - Capembah Creek (Myora Springs), North Stradbroke Island



Asset Owner: Redland City Council

Built & Project Managed by: Partnership between Quandamooka Yoolooburrabee Aboriginal Corporation & SEQ Catchments Limited.

Engineering: Peter McKay, Crighton Engineering

Construction: Tim Powell, Pacific Palms Constructions

My first Deckwood project was in a lookout in a rainforest at Mt Tamborine which was built by Tim Powell, then with the Qld National Parks. Since that time Tim (on your right in the top picture) has been a good supporter of our products and has become a friend. We supplied the boardwalk at Myora Springs to Tim about a year ago. This is a very well built structure which follows our recommendations and has close attention to detail such as designing where the joins are made and having a kerb above the deck and at a height not to trap wheelchairs.

Capembah Creek (commonly referred to as Myora Springs), , not far from Dunwich Point on North Stradbroke Island is part of the native title claim of the Quandamooka Yoolooburrabee Aboriginal Corporation and is in a culturally significant site with middens on both sides of the creek. Unfortunately the sandy creekbed had been contaminated by a large amount of road gravel washed out from the road nearby. This had to be removed and erosion stabilised with [Elcorock bags](#).

The main piles were installed by jetting. To do this Tim fitted two pipes down the side of pile with a manifold at the top which connected to a fire pump. He drilled 900 mm and dropped the post in and backfilled. The pump was then started and two men with a spirit level guided the pile down the 3.5m required. The surrounding soil around the pile was compacted by a vibrator. [This video shows how quickly the piles went in.](#)





The image at the top left shows the joists going down. Note the double joist arrangement where the joists go. Note also the joists are widely spaced to maximise the spanning potential of the 145x45 Deckwood. The inner joists are lapped so the last screws are a long distance from the end so splitting at the end does not occur and the board at the end of the joist become loose. You can force a 14# batten screw into the hardwood joist without predrilling but it always splits the joist. Tim predrilled to the full depth of the screw and placed them in a staggered alignment and so avoided any splitting. Remarkably there was no splitting at the end - see top right hand image. The lower image shows that after sealing the ends with CN emulsion the ends of the protruding joists were capped. Fasteners are of course stainless.

All in all this is a remarkable job. Congratulations Tim.

[Blog being written for Timber+DESIGN Magazine](#)

[My fifth blog written for Timber+DESIGN web magazine is on using the correct decking fastener \(Click here to go to article\).](#) Timber+DESIGN is a very useful magazine for those interested in timber that has been used imaginatively.

[Click here for a link to the website of Timber+DESIGN magazine.](#)

[Blog on whether decking should be a product in its own right](#)

[blog on whether plastic decking all its cracked up to be](#)

[blog on H4 and H5 treatment](#)

[blog on whether to use stainless or galvanised fasteners.](#)

To be on the mailing list, contact Kay Phillips [through this link](#).

Next month's blog will be on slips trips and falls.

Bridge Quote Requests

If there is any doubt that OSA make the best kit bridges in the country look at the [Berrinba Wetlands Project](#) . Not all bridges are equal. After encountering three bridges in one month that did not meet the Bridge Code I wrote the [May 2012 newsletter](#). Refer to it when assessing the suitability of quotes.

[Steel bridge Quotation Request Form](#)

[Timber Bridge Quotation Request Form](#)

More information:

If you have timber road/rail/heritage bridge issues,

we suggest you talk to:

Mr. Dan Tingley

Senior Engineer

Wood Research and Development

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Corvallis OR 97333

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