



March 2012 Newsletter

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A Reminder about Decking Gaps

I have wanted to get this image for some time as it should fix in our minds how critical it is to design the gaps in decking correctly.

A public venue has different requirements to a bush track. It has not been easy to get this shot as, unfortunately, I am of an age that all my female friends all wear sensible shoes.

Come to think about it, I am of an age where most of their daughters are wearing sensible shoes also.

I wrote in detail about deck gaps in the January 2011 Newsletter and while we might talk of 12 or 13mm maximum gap to meet different codes, this maximum gap is far too big for situations where high heels can be expected.

We might speak of inappropriate footwear but rather it is really a matter of inappropriate gaps.

In a couple of university jobs we have been involved in, our recommendation has been to use 70x35 Deckwood, laid without a gap and then you end up with a gap of about 4mm.



Links

January 2011 Newsletter:

http://www.outdoorstructures.com.au/pdf/osa_newsletter_01_11.pdf

Specifications Should Mean Something

The recession over the last few years has left me very disillusioned over the value and point of specifications being written by professional designers. There is no value putting effort into the design and putting professional indemnity at risk if no attempt is made to determine if what is supplied matches what is specified.

As things get harder, substitution is becoming more blatant and some are diverging even further from the nominated specification than I could have ever imagined. At the design stage many of our readers come to us for advice, assistance and technical expertise and we get sick at heart when we see what actually gets built and how much of the certainty in the original specification has gone.

The image above is a good example of what happens when contractors substitute and purchase on price. Hopefully the image is cropped sufficiently to hide its location. The differences between an OSA Boardwalk (which was specified) and the boardwalk actually built are tabled below.



An attempted copy of an OSA bedlog boardwalk

Requirement to be Equal to an OSA Boardwalk	OSA	Other
Durability 1 in Ground bedlog	Yes	Unknown
Anti split Plate for bedlog	Yes	No
CN Emulsion on Bedlog	Yes	Do not think so
Royal species hardwood joist	Yes	I do not believe so
Dampcourse (overhanging) on joists	Yes	No
Royal species decking	Yes	I do not believe so
Timber to Deckwood Specification	Yes	29 out of 231 pieces not to OSA standard
Self cleaning deck	Yes	No
Oiled all round with CN Oil prior to construction	Yes	No
Kerb compliant with disability code	Yes	I do not believe so
Stainless Screws	Yes	Yes
Good ventilation	Yes	No
Stainless bolts (required for the location)	Yes	No
Construction guide supplied by manufacturer	Yes	No
Lowest cost	No	Yes

We initially provided drawings to the client which were used in the tender document which showed the boardwalk sitting on top of the ground. The builder has constructed it with the ground level virtually at the level of the deck. The boardwalk is therefore sitting in a trough. When I performed the burning splinter test on slivers from the deck and joists they indicated that blackbutt was used. The defects in the deck are also similar to those of blackbutt.

This is very likely what you will receive when you just specify F14 or F17 hardwood and purchase on price. It is a virtually meaningless specification Remember that this species is not suitable for bridge decking, crossarms and railway sleepers and yet somehow there is an expectancy it will work in a boardwalk, and especially one that is in a very demanding situation.

What is the most upsetting part of this project is that had we been involved at the supply stage we would have taken the client by the hand and advised him not to build it at all. This is not an appropriate application for a timber boardwalk and would have been better in concrete! Down the years it is quite possible that someone will look at what must be unsatisfactory performance of this structure and make a policy decision not to build in timber again. I cannot say I would blame them.

The point of all this is that a specification should mean something! A recent substitution I saw was 88x20 pine decking substituted for our 120x35 Deckwood decking for a 5 kPa, 4.5 kN application. For only the third time in 14 years I complained and of course it fell on deaf ears. What happens when someone rides a horse or a quad bike on the thin pine deck? There is after all meant to be a point to specifications. Who is supposed to check that what is specified is actually supplied and who bears the liability if someone sues.

If you are in doubt as to the suitability of timber supplied, I am a qualified grader and may be able to be of assistance.

Links

Boardwalk design Guide: <http://www.outdoorstructures.com.au/pdf/boardwalk-design-guide-3.pdf>

Project galleries of genuine OSA bedlog boardwalks:

Cannon Hill Anglican College: <http://www.outdoorstructures.com.au/gallery.php?gid=72&SID=1>

Nashville Lagoon: <http://www.outdoorstructures.com.au/gallery.php?gid=24&SID=1>

Sovereign Waters: <http://www.outdoorstructures.com.au/gallery.php?gid=34&SID=1>

New Barbecue Table - Flinders table range

We have just installed the first order of a new barbecue table design. It is a robust table with heavy galvanised legs and royal species hardwood slats. The slats are coated with Tanacoat (notice the way Tanacoat repels water).

We hope that by the next newsletter we will have the dynamic block on our website to assist you in using these tables in your projects. They will cost just under \$2000.



Octagonal Shelter



Last month we introduced a 14m octagonal shelter. This large shelter is big enough to fit a playground underneath. We now also have a smaller octagonal shelter. A 6m diameter shelter is pictures. To date all our gazebos have been hexagonal. The posts here are our Pioneer posts which have a 35 year design life. The handrail is hardwood which is harder to vandalise than pine. The client also decided to use our heavy duty seats inside the shelter.

14m Octagonal shelter - Update

Last month we launched our 14m octagonal shelter.

Play Works have kindly drawn the shelter with some of their play equipment under.

This gives you a good idea what is possible.



Heritage Lattice Truss

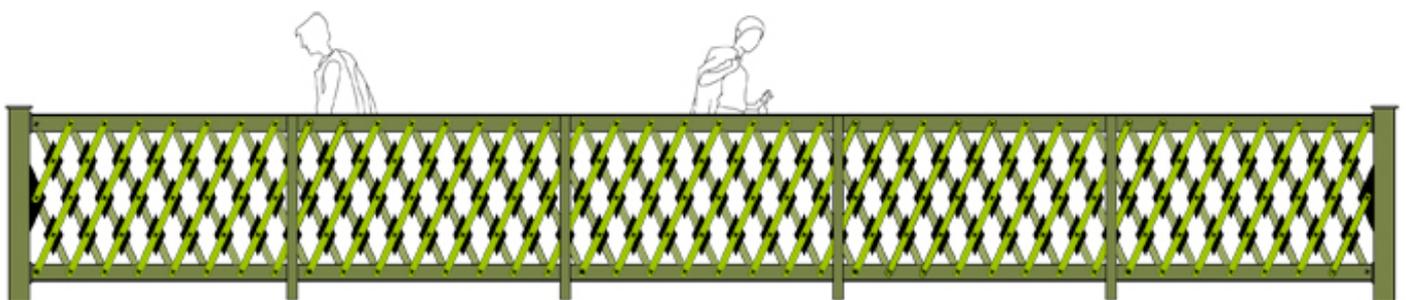
There are some situations that need a traditionally styled bridge for heritage or other reasons. OSA's consultant, James Pierce and Associates has been working on such a design and we will soon be able to offer you a lattice truss.

A suitable location for these bridges would be near railway lines and areas that need a UK feel. If you have ever spent time on British Rail you would have seen many of these bridges.

Unfortunately we cannot find anybody that still rivets steel together but can get a bolt head that looks acceptable from the inside. Span is limited to 12 metres

Link to PDF of concept drawing:

<http://www.outdoorstructures.com.au/pdf/english-lattice-truss-ped-bridge-12.pdf>



Level 1 & 2 Bridge Inspection Course

EPHOD (trademark) Electronic Pulse Highlight and Outline Diagnostic testing of failed stringer in Northern Queensland to establish the reading obtained in microseconds (ms) across a known defect.

The girder defects were not visually apparent from below when inspected prior to the girder failing. Further, a sounding bore had been utilized in this log to confirm it was in satisfactory condition a few weeks before it failed.



The annulus thickness at the point of bore sounding was over 100 mm. Clearly sounding bores are not satisfactory inspection methods for old timber bridges.

Dan Tingley of Timber restoration Systems will be running level 1 and 2 bridge inspection courses in coming months. If you inspect timber bridges these courses are a must.

Level 1 Course will be hosted by the Lockyer Valley Regional Council and be held in Laidley from May 2nd and 3rd. There are two additional reasons to attend, one is so we can meet and the other is that accommodation has been booked at Hidden Valley Resort which is a local landmark.

Level 2 Course will be held at the DPI Forestry from May 7th to 12. This course requires attendees to make repairs and then test them so the laboratory that the Forestry Department runs at Salisbury will be utilised.

Links

Level 1 Course application form

<https://rcpt.yousendit.com/1405727354/1bcfd0e4cb536393eb25185342185616>

Level 2 Course application form

<https://rcpt.yousendit.com/1405700122/82d988063b8f3c5632b653e06f6cb9b8>

Regards

Ted Stubbersfield, Director OUTDOOR STRUCTURES AUSTRALIA

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 2010 Newsletter](#). Refer to the May OSA Newsletter when assessing the suitability of quotes.

Steel Bridge Quotation Request Form

http://www.outdoorstructures.com.au/bridge_request.php?Mode=st

Timber Bridge Quotation Request Form

http://www.outdoorstructures.com.au/bridge_request.php

More information:

If you have timber road/rail/heritage bridge issues, we suggest you talk to:

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