November 2012 Newsletter

Written by Ted Stubbersfield for

INFRASTRUCXION PTY LTD

Contents

Dear Reader

Deckwood Helps Win Yet Another Award

I received the following complement from Denis Fitzpatrick of Green Survival

Hello Ted, I trust this mail finds you well. It has been some time since we have had the opportunity to order some more of your wonderful products. We did win an award for a job we did the last time we used your Deckwood. (Landscape Queensland awards for commercial category 1.) (featured on our website www.greensurvival.com.au and look at Graceville kindy Job) This time I would like to order 200 lm of 70x35 Deckwood in multiples of 1200mm lengths. Regards Denis Fitzpatrick

Link http://www.greensurvival.com.au/feature7.php

Be Careful Specifying Deckwood

	
Untreated sapwood	Large knots and slippery surface

Frequently people try to assist us by saying *F17 Deckwood* instead of just *Deckwood* by Outdoor Structures or its Licensees. If you want an Australian Standard product don't mention Deckwood and don't expect any sympathy from me when it goes wrong. If you want Deckwood dont mention an F rating. They are two totally different products and two different philosophies behind the product.

What is the difference? Well the F rated products is great for roof trusses but consider F17 Ironbark. Its physical properties are defined under AS2082. It is allowed to have such a large amount of defect that it only has 48% of the strength of clear timber. If it was spotted gum it would be a bit better but only have 60% of the strength of clear timber. Do you really want to settle for this? Take the image as an example. The light coloured timber on the top is untreated sapwood, the red is red ironbark heartwood. F17 in both spotted gum allows for 20% of the cross section to be missing e.gg. forklift damage or untreated sapwood in applications where it will decay.

The sapwood illustrated is going to decay, and it will do so very quickly. I expect that all over this boardwalk there will shortly be significant trip hazards. That is what happens when you become a slave to the mantra that you must have an Australian Standard product. Deckwood takes the approach that we a producing a product, decking, not a piece of generic timber that can be used in a multitude of applications. I am presently working on a book entitled Understanding AS2082 and hope it will help you in the future.

The second picture shows another piece of decking on the same boardwalk. I could have used many more images from the same job to illustrate the point. It is allegedly graded to F27. This is F nothing due to the large defect size. The poor company that would have supplied the second comparative price for F27 and priced on correctly graded material would have been told he was too dear. Look at the slippery dressed

and oiled face. When you think of product over against standards you should not end up with this result. Sadly whatever you write for a grade doesn't mean much as few understand what they are asking for, fewer people care and nobody holds suppliers to account.

Publications by Ted Stubbersfield

Many of my readers would know that I have been working on a series of Timber Design Files. The Timber Preservation Guide is finally at the graphic artist now. The book entitled Boardwalk and Deck Design Essentials just needs some polishing and it will be ready for the graphic artist also. If you are designing a deck or boardwalk you should not be doing so without these in your hands. They are only $33 each at the moment. Contact me for purchase details or see below.

Timber Preservation Guide	**Deck and Boardwalk Design Essentials**

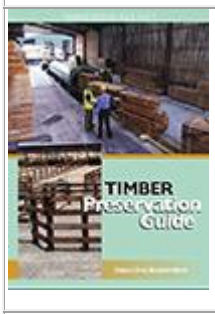
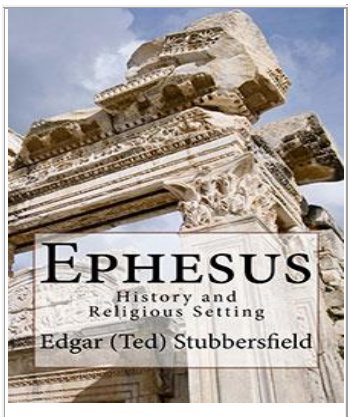



Table of contents	Table of Contents
Order Guide	Order Guide

All our guides can be seen at

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



In-between times I have been putting some of my older non timber works on Amazon. Those with an interest in ancient history or the New Testament might find my little book on Ephesus interesting. It hasn't got much to do with outdoor structures though unless you are interested in the Temple of Artemis, one of the seven wonders of the ancient world. It is available from Amazon as a hard copy or on Kindle. Just type in Stubbersfield in the Amazon search bar and you will find it.

Fibre Composite Joists

Deck being constructed with fibre composite joists

End view of fibre composite joists

There is a belief that timber is only suitable for temporary structures and that, for a modern structure to succeed, it must be constructed using modern material such as fibre composite joists. Now we are aware that this product appears to make excellent crossarms on powerpoles but what about boardwalk joists? The think the jury is still out but we have no philosophical objections to their use as such. But remember, you are swapping the well known and easily solvable problems of one material for the lesser known problems of another. Let me explain. We had a customer in a quandary earlier this month. He is using our Deckwood with fibre composite joists. The contractors had made a test panel and found that the screws stripped out easily if they had to exert any extra pressure needed to straighten the boards. How crooked were the boards? They were within Australian Standards guidelines and when I stood on them they went straight. Now I have to admit that I weigh more than I should. The problem was not the boards but the thin wall thickness of the joist.

Installing subsequent boards on the test panel, as in a redecking situation, caused problems also. This was due to the difficulties caused by drilling holes close to or intersecting existing holes. Remember, these joists are supposed to be a 100 year life product which means 4 decks which in turn means that the top will look like Swiss cheese.We suggested to the client that a simple solution would be to use H4 treated Ironwood pine by CHH (no substitution, read my timber preservation guide to find out why not) and screw into the pine as well.

There are situations where the use of fibre composite joists make complete sense such as where access is difficult and its lightness is an essential. There are others where it does not. A correctly detailed and more economical high durability hardwood joist has a design life of 85 years and are we going to argue the toss over 15 years when the job will probably be redone well beforehand. Talk to us about your joists.

Date Claimer Level 1 and 2 Bridge Inspection Course

(Not a paid Advertisement)

EPHOD (trade mark) 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/maintain timber bridges these courses are a must.

Level 1 Course will be held at Surfers Paradise from November 21st and 22nd. I have booked to be there. You will have to be quick, sorry I am late with the newsletter.

Level 2 Course will be held at the DPI Forestry during the week starting December 3. This course requires attendees to make repairs and then test them. The course will be held at Caboolture.

Download the course applications from
http://www.timberrestorationsystems.com.au/training_courses.php
or contact Timber Restoration Systems Pty Ltd, Ph: (03) 5792 1099, fax: (03) 5799 0549

Consultancy Services by Ted Stubbersfield

When I started offering my expertise on a consultancy basis I really wondered if you could make a living doing this. The more so as I was doing it for free to assist in obtaining orders. I am still wondering! But there is no doubt in my mind that you should be able to make a good living. The stories I am now hearing are frightening. You do not have to accept substandard material and performance. I am here to help you from the design stage through to final completion.

In our area of expertise, often it is the art that proves more important than the science. Weather exposed structures normally do not fail because of incorrect member size calculations, but because a myriad of small points of detail are not

taken care of.

As a timber design assistant we offer:

- The provision of high quality technical guides on timber design. (accessed from our website on a pay per view or membership basis)
- The review of professional drawings to identify potential timber design issues that may impact service life
- The preparation of proposed AutoCAD cross sections of structures
- To be a sounding board for ideas
- Lectures and presentations
- The assessment of best practice in construction.

As a grader I can assist with grading for confirmation to a nominated grade but more importantly I can assess whether timber is graded to an appropriate grade. Often these are not the same thing.

Contact me on 07 54625532 or by email (edgarstubbersfield@gmail.com) to discuss how I can be of assistance to your organisation.

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
1760 SW 3rd Street,

Infrastrucxion Pty Ltd

E-Mail: Chris@Infrastrucxion.com
Web:www.outdoorstructures.com.au

Phone: (07) 5462 4255
Fax (07) 5462 4077
Old College Road Gatton, Australia
PO Box 517 Gatton Q 4343
Australia

ABN 90 234 979 738

Corvallis OR 97333
Office 0011 1 541 752 0188
Fax: 0011 1 541 752 0195
Cell: 04 5957 6314 0r 04 28983328
dant.tingley@gmail.com

Regards
Ted Stubbersfield
07 5462 4255