

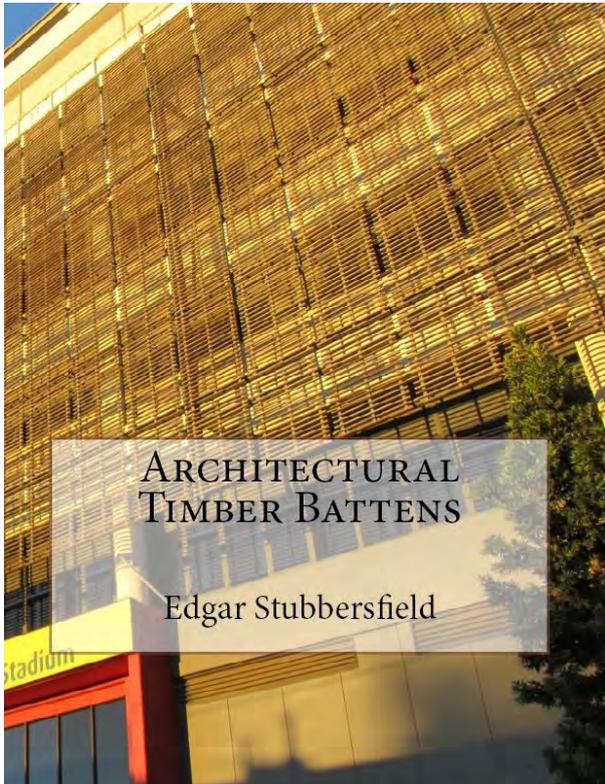
Outdoor Structures Australia

August 2015 Newsletter

Written by Ted Stubbersfield

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[New Publication Now Available](#)



What is the difference between a project using battens that look great, age well with minimal maintenance and one that is a maintenance nightmare? The answer is \$44, the cost of my latest book, *Architectural Timber Battens* which is now available for purchase. Better still It is available this month only for \$33 but will be increasing to \$44 next month. It is very good value as this book has tapped into the expertise of some of the countries leading timber consultants, scientists and architects. It includes everything you need to know and has a number of case histories. There should not be an architectural practice without this book. [Email me for a PDF.](#)

Need a hard copy? [You can purchase this from Amazon for \\$35.00 US plus postage.](#)

Why not lash out and purchase the books you need for your library before Tony puts GST on them (and dare I say, put some food on my table).

Images Sought for Next Book



Timber Footbridge at Windsor UK

I am well under way on my sixteenth book since semi retiring (not all are on timber). That doesn't count the eight guides written previously. This latest guide deals with footbridges. Now, I already have a guide on footbridges and it tells you what to build. This new book primarily deals with How. I have about 50 pages put together including 20 on handrail. I am looking for images and hope my readers can help me. What I am particularly looking for are

- Bridge failures
- Non durable hardwood decaying
- Termite damage

If you have these images and others that you would like to share with me I would be grateful to receive them.

How to Ensure the Correct Verandah Joist Life



(Image used with permission)

If you are a Queenslanders, you would have to have been living under a stone not to be aware of the fatal deck collapse at Hamilton. The 90 year old timber did not fail, it was a construction mistake from that long ago that eventually made its presence felt. Weather exposed timber design does not forgive any error. Today anyone designing a deck, and anyone building a deck and anyone certifying a verandah or exposed deck should immediately hear warning bells and proceed with the utmost caution. But it seems that the captain of the Titanic is at the helm and it is full steam ahead and the lessons have not been learnt. Why this note of despair? The rotten joist is on a large deck that is less than eight years old, If that was not enough, the bearer is Tasmanian oak and it is going the same way.

This is not rocket science. I was thrown out of school at grade 10 and even I can get my mind around it. You do not have to have an encyclopaedic memory nor do you do not have to have second sight to explore the esoteric mysteries of the universe, you just need to be able to read. (I had 52 in my class and still manged this skill). The nationwide Building Act 1975 gave legislative authority to the comprehensive provisions for the design and construction of homes and other structures called the Building Code of Australia (BCA). By referencing related companion documents such as Australian Standards, they were no longer a voluntary code but **also had the force of law**. In Queensland one of these companion documents is the two volume Construction Timbers in Queensland. In the first volume it mandates a 50 year design life for verandah joists, not seven years. But how do you plan to get to 50 years, and you have to plan? That is where the second volume comes in. It lists all the species you are likely to

encounter and tells you authoritatively if a given species is suitable or what has to be done to make it suitable. [All of this is free of charge off the net.](#) What's more, it is the end of the matter as it is the law. Follow its recommendations and you have planned to succeed. Let's look at a couple of specifications for joists where designers have not planned to succeed.

F14 Hardwood. As much as 85% of the production from Queensland state forests are from the most durable group of species that we call royal species. But that same group of highly durable timber only makes up 20% of NSW forestry production. But then you could put your faith in the lowest tenderer to have purchased the more expensive species. All you are saying with F14 is in effect that the piece will have a permissible working stress in bending of 14 mPA. Almost useless information. It says nothing about durability stability shrinkage or appearance. You have to be precise in your species. I would not use blackbutt and F14 is a very low grade indeed in anything decent. Fortunately most, but not all, suppliers give you better

F17 KD Hardwood. This is a higher F rating so it has to be better - right? Wrong!! When timber is dried it increases in strength. An F14 GOS spotted gum jumps two grades and becomes F22 when dry. Generally speaking F17 KD is a very low spec in anything with respectable durability properties. For spotted gum, again, it has about 40% of the strength of clear timber. For Ironbark it is off the scale anything that was conceived that anyone would ever sell. Again there is no durability as it is either a good species of appalling quality or it is a non durable timber such as Victorian ash of reasonable quality.

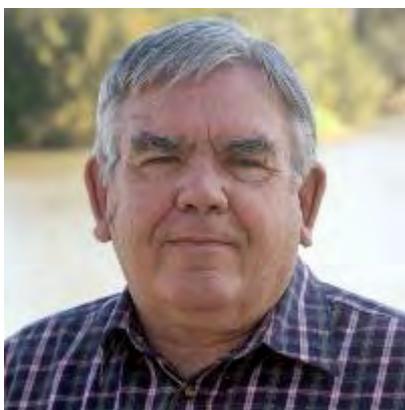
All this is explained in my books *Grading Hardwood - Understanding AS2082*. The possibility of getting this wrong is why we developed Joistwood - so you would not have to understand all of this. When we supply joists we give you what you need. If you are a building designer you need to invest the \$33 that that book costs or purchase a hard copy from Timber Queensland. Still not convinced? Here is some additional reading:

[F17 is an almost useless specification](#)

[Newsletter Feb 2010 - Decks that can Kill](#)

[Timber design Magazine blog](#)

[New CPD Session on Architectural Timber Battens](#)



There has been a surprising level of interest in my latest CPD subject, *Architectural Timber Battens*. Have you made a booking yet. You know you have to do CPD so why not avail yourself of a something really useful?

Timber construction and durability in external application has always been my passion and in particular to see timber used in a fit for purpose application and last a lifetime in all its glory. I have written several books on external timber design and application over the years and presented as guest speaker at many Seminars including Timber Queensland's on the topic.

The free seminars have stopped for the time being, except for those already booked. The seminars usually taken up first are either the Seven Deadly Sins of Timber Design or Timber Decks - Designing for Durability (or both if you can make the time on the same day). These are serious seminars with [serious learning outcomes](#) and, if required for CPD points, they come with a test and a certificate. Call me on 0414770261 to arrange a suitable time for your personalised "Ted talk".

The full range of subjects I have available are:

Timber Preservation.

Hardwood Grading.

Timber Decks – Designing for Durability,

Utilising Small Diameter Hardwood.

The Seven Deadly Sins of Timber Design.

Joints and

Architectural Timber Battens

Bolt Down Heavy Duty Bollards now Available



Our standard range of heavy duty bollards is now available in a bolt down version as illustrated. What would turn this from being a great image to an outstanding one? An [OSA Lindsay shelter](#) with [Finders barbecue table](#) in the background.

Forest Red Gum - Something I Just Noticed

I have in the past used forest red gum for boardwalk joists. A good piece went F17 and it was durability Class 1 in ground. It should d have been good. I was checking on something else recently and I saw that its strength has been re-classified. Earlier Structural Grade 2 went F14 and Structural Grade 1 went F17. Structural Grade 1 is the highest grade. Now both grades only meet F14. That rules FRG out for joists

for boardwalks and decks.. It did not work as decking.

Improved Flinders Seat



We have tweaked the design of the Flinders seats and BBQ tables to make them even more comfortable. Slightly altered the angle and angled the top and front slat. It was dood before, now it is brilliant. [Here is a link to the design tools for the seats.](#) [Here is a link to the design tools for the barbecue table.](#)

Bridge Quote Requests

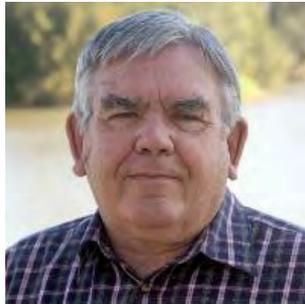
If there is any doubt that OSA make the best kit bridges in the country look at the [Berrinba Wetlands Project](#) . Not all bridges are equal. After encountering three bridges in one month that did not meet the Bridge Code I wrote the [May 2012 newsletter](#). Refer to it when assessing the suitability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

[Steel bridge Quotation Request Form](#)

[Timber Bridge Quotation Request Form](#)

More information:

If you have longer span timber road/rail/heritage bridge issues, we suggest you talk to Mr. Dan Tingley Cell: 04 5957 6314 or 04 28983328 E. dant.tingley@gmail.com



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