

OUTDOOR STRUCTURES AUSTRALIA

Outlasts and Outperforms

February 2012 Newsletter

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Dear Reader

Handrail Height with Horses



Over the years I have often been asked how high a handrail should be on a footbridge to suit horses. When I say 1.8 metres, people always look at me strangely and then ask if I have engineering for our decking for horse loads. I met someone recently who wanted a footbridge on a horse trail. Without asking my advice she told me the rail must be 1.8m high. Why the different approach? You guessed it, she rides a horse. The handrail height is as important as the decking size.

Incidentally the bridge in the image was supplied by me back in 1986 and has had no maintenance other than have two deck boards replaced; It easily accommodates a horse and rider (now). If any of my readers are concerned that it is not safe, they need not worry, after all it is a "light horse".

Links

Light Bridge Manual

<http://www.outdoorstructures.com.au/pdf/light-bridge-manual-1a-10.pdf>

Graduate Certificate in Timber (Processing and Building).

Our friends at the School of Architecture & Design, University of Tasmania asked if I could include information on their new Graduate Certificate in Timber (Processing and Building). Frankly I wished this was around in 1975 when I first started in the sales/manufacturing area of our family business. What I learnt about timber was done the hard way, through making many costly mistakes or seeing the costly mistakes of others and thinking "there but for the grace of God". I would dearly have loved to have had access to a course like this. But that was in the days when lectures were at set inconvenient times in faraway places and electronic communication had not been heard of. But we did have telegrams! Now with the growth of distance learning and widespread access to broadband, lectures can be listened to in your home or car an hour after they were given.

The Graduate Certificate in Timber (Processing and Building) is a four-unit part time course that provides advanced skills in the design, construction, maintenance and management of timber-rich buildings and structures or the production of timber or timber products. Information on the course is provided in the links below.

Let me tell you a secret, so long as you don't tell anybody else. I was thrown out of school at the end of grade 10 because I was unteachable. I still harbour a thought that they did not know how to nurture a great mind but I fear they were right. But if I can do a Master of Theology by distance learning, then I would not have a reader that could not devour this course. There is even provision for sawmillers/producers who do not have a degree. I expect that we will have someone from OSA do the course.

Links

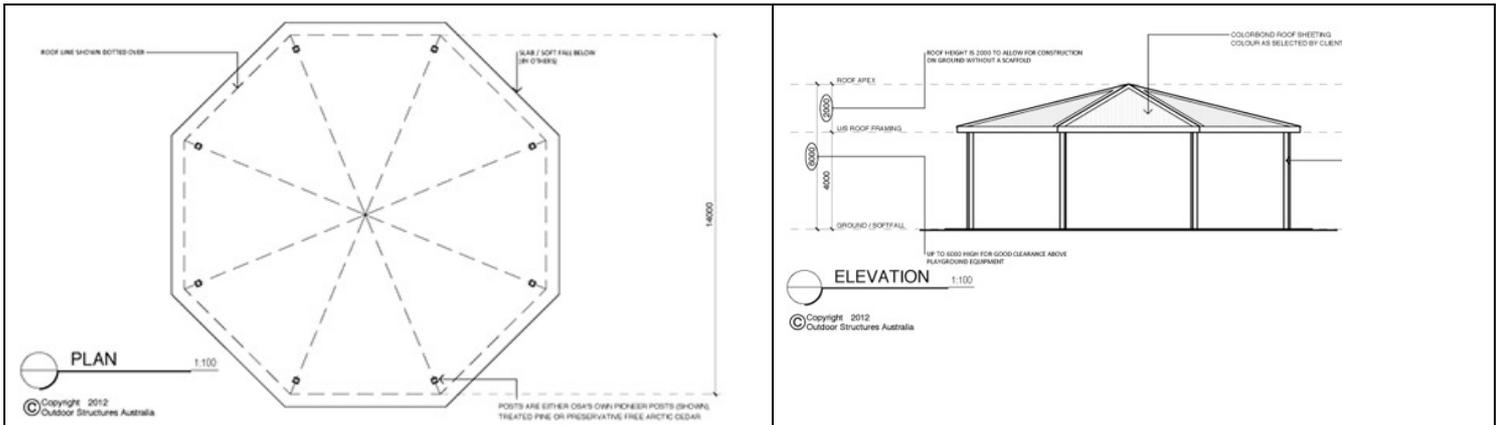
Press Release

http://www.outdoorstructures.com.au/images_email/graduate-certificatin-in-timber-press-12.pdf

Course information

http://www.outdoorstructures.com.au/images_email/graduate-certificate-in-timber-uot-12.pdf

Large Playground Shelters



Concept drawings of new 15m octagonal shelter

OSA in conjunction with Wood Research and Development of Corvallis, Oregon, will be bringing a new shelter onto the Australian Market. The shelter is a 14 metre octagon which will be large enough to fit a good sized playground underneath. The philosophy behind this shelter is that the roof has to be high enough for safety under the highest piece of playground equipment. The roof pitch also has to be no more than 2.0 metres high so it can be built on the ground without scaffolding.

The shelter will be a combination of Imported treated laminated beams from Oregon and Australian hardware, The posts can be either treated pine, arctic cedar (untreated) or our own pioneer posts. We believe the kit price will be in the order of \$23-26,000 depending on options. There will be a lead time of about 2.5 months due to shipping.

[LINK TO PDF OF ELEVATION](http://www.outdoorstructures.com.au/pdf/osa-14m-octagonal-shelter-elevation.pdf)

<http://www.outdoorstructures.com.au/pdf/osa-14m-octagonal-shelter-elevation.pdf>

Local Blacksmith Artist



The top two images show rail incorporating our Cruiserline rail



You know as well as me how hard it is to find skilled and conscientious tradesmen. When you find them you treasure them and keep using them. For a number of years I have been admiring the work of Kim Duff who trades as Ironic Art. Kim is a young (compared to me) local (Gatton) blacksmith. Actually it is not good enough to call him a blacksmith as there is not a horseshoe in sight. Blacksmith artist best describes him. I have known the family well for all my life. They have all been outstanding people, and gifted and hardworking tradesmen. Kim is no exception. I am sure his work would enhance any of your projects. I have added some images for you to admire also. When he wants good timber rail he always comes to OSA.

If you have a project coming up that needs some decorative iron work you could do far worse than give Kim a call. An Ironic Art wrought iron artwork would go well with an OSA project.

His contact details are

Phone: 0419729476, **Fax:** 07 5462 1990 **Email:** ironicart74@bigpond.com

Web: www.ironicart.com.au

See also <http://hornibrookbridgeartwork.com/> where Kim has made souvenirs from the old Hornibrook bridge

Correct Use of LOSP Treated Handrail



Decay of incorrectly installed LOSP pine handrail

The image above is of an *Light Organic Solvent Preservative Treated* (LOSP) pine handrail that has failed at a friend's home. He will have to spend \$4000 on repairs because, only fifteen years ago, the builder did not spend \$10 to seal the cut ends correctly.

Some of my readers have been very helpful with information to assist me in the little book I am writing on timber preservation. I still welcome feedback and images of treated timber durability issues. I am especially looking for images of corroded bolts in treated timber. Here is a shortened introduction to LOSP majoring on its use in handrail. But briefly it is not a preservative that is suited to our area of expertise, weather exposed unseasoned hardwood. Generally the pine handrail that is sold will be LOSP treated

LOSP derives its name from the solvent (normally white spirit) which is used to carry a range of organic fungicides and pesticides. These solvent borne preservatives are normally used to preserve softwoods in H1 through to H3 applications i.e., handrail. For H3 applications LOSP must be used in conjunction with *an appropriate finish system to inhibit mould growth on the surface and reduce the effects of weathering*. This finishing system also has to be maintained.

It is common for LOSP treated pine products such as handrail and doorjambs to be pre-primed with water based primer but in the past this primer was often not of high quality. A poor quality primer will affect the performance of the finishing system needed to protect the timber. In the absence of product branding and/or painting finish guidelines, the paint quality can be checked by scribing an "X" on the painted surface, firmly applying adhesive tape over it and then lifting. If any paint adheres to the tape all the primer has to be removed and repainted with oil based (not water based) primer.

Some LOSP applications have not been as successful as hoped. The image shows a handrail with severe decay after 15 years. It was evident one year earlier and, having felt all the spongy ends in the 20 plus panels I expect that the decay was present under the paint a long time before it was visible. Having sold quantities of this product in a different life, my experience has been that builders tended to treat the treated pine handrail as they did the durable hardwoods, i.e. they cut it to length and sealed the ends with paint. It is necessary to seal with an approved preservative, not paint. CN oil and emulsion will work well but have compatibility issues with top coats. Two other products manufactured

by Arch that are approved with their treatments but do not have compatibility issues are *Ecoseal* a copper and permethrin spray with a greenish colour or *Endseal* another spray which uses zinc naphthanate and permethrin. Endseal has the advantage of showing where the timber has been sealed. Other preservative end sealers are available from different manufacturers such as Osmostone's Protim *Timbercare XJ*.

Without a preservative being applied to the end, painting can compound the decay problem, not avert it. Fine cracks in the paint let in moisture but do not allow it to escape. Research by DPI Forestry in Queensland has shown that painted and unmaintained housed joints in the weather decay more rapidly than unpainted.

Postscript on my friends handrail. One supplier told him just to paint the ends of the replacement timber; another sold him some tar paint (wrong when I spoke to the paint manufacturer) and a third store wanted to sell a tar paint as well. The distributor of Arch product gave me two names of people in Toowoomba I could try. Neither stocked it. One of the two companies ventured these comments "I had it in stock but the lazy (his word not mine) builders will not use it. I threw it out when it reached its expiry date." It is almost enough to make you sick at heart.

If it is all too much trouble we will gladly sell you hardwood handrail!

Links

Commercial barrier guide

<http://www.outdoorstructures.com.au/pdf/commercial-barrier-guide-10b.pdf>

Bridge Quote Requests

If there is any doubt that OSA make the best kit bridges in the country look at the Berrinba Wetlands Project <http://www.outdoorstructures.com.au/gallery.php?qid=95&SID=2> Not all bridges are equal. After encountering three bridges in one month that did not meet the Bridge Code I wrote the May newsletter. Refer to it when assessing the suitability of quotes.

http://www.outdoorstructures.com.au/pdf/osa_newsletter_05_10.pdf

Steel bridge Quotation Request Form

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

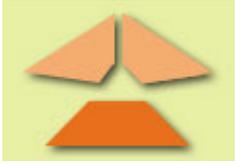
Timber Bridge Quotation Request Form http://www.outdoorstructures.com.au/bridge_request.php

Regards

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