



May 2013 Newsletter

Written by Ted Stubbersfield

For Infrastrucxion Pty Ltd

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I had a phone call during the month about slip resistance of decking and possible paint on finishes. It transpired that an important deck was having problems when people walked from the concrete approaches onto wet dressed timber. I knew the deck and everything about it was excellent. The detailing could have all come out of my guides and probably did, except that the decking was dressed. The deck looked really great when first laid, more attractive than if they had used Deckwood with its natural sawn face. The difference is that Deckwood when freshly oiled with Tanacoat has an R12 rating. Striving for maximum beauty was only achieved at an actual, not theoretical, risk to the public.

Nearby on another boardwalk are seats without backs on the water side. I received an phone call from a solicitor representing a woman who fell back from them. She (the solicitor) had found our guides on the net (from the days when they were free). "How is she doing?" I asked. "She is starting to get some movement back in her legs." was the reply. I was able to introduce them to a forensic engineer who could hopefully guide them through an area where there seemed to be no standards. Later I saw the same detail on another set of plans. I put the designer in touch with the solicitor who spoke to them in general terms. The plans were reissued with the backless seats on the land side.

What is the lesson? It is not theory, it is reality. Design for safety before beauty and hopefully combine the two.

Stainless Steel Bollards

Sample from range of stainless bollards now manufactured by Infrastruxion		
		
Bolt down and in ground round bollards	Bolt down and in ground square and rectangular bollards	Bolt down and in ground triangular bollards
		
<p style="color: red;">Typical stainless steel bollard with base showing crevice corrosion</p>		

Infrastruxion make the best timber bollards and traffic barriers in the country. Of course there is no shortage of companies who attempt to copy, including manufacturers of stainless bollards. I look at some of their attempts and think, "I would not do it that way". So we thought, what is involved with a timber producer making a stainless steel bollard? What did we know about stainless? Very little but I had been observing the performance of stainless in landscaping for years, but more importantly I knew where to get the answers.

We looked at bollards together and the examples we saw did not, in the opinion of those who advised us represent very best practice with stainless. Their advice was the same as that which had already seemed fairly obvious to me which was:

- Bollards generally were not polished to a high enough finish. Most were to a 320 grit finish or level 4. Tarnishing can occur.
- 304 grade was being used in situations that were clearly a 316 application

- Where pipes were fitted into bases, they were frequently welded from underneath (to save polishing the weld) leaving the opportunity for crevice corrosion on the top

Of course, doing it differently adds cost. We are now introducing our range of stainless steel bollards. You can still have them the way you are used to them but more importantly the option is there for them to be made the way we believe they should be but with what we believe is some very keen pricing. Note that this is not for some stainless of dubious quality out of China but premium steel from Sandvik and fabricated in Australia. Now the stainless manufacturers would probably say "I would not do it that way". Brochure soon to follow. If you require a special bollard, talk to us.

(Prices correct at May 2013)

304 grade. 320 grit polish (For 10 or more bollards)

115 mm OD 3mm tube flat or sloping top, **in ground \$181.34 + GST**

115 mm OD 3mm tube flat or sloping top, **bolt down \$247.16 + GST**

168 mm OD 3.4mm tube flat or sloping top, **in ground \$235.86 + GST**

168 mm OD 3.4mm tube flat or sloping top, **bolt down \$310.76 + GST**

316 grade. 800 grit polish

115 mm OD 3mm tube flat or sloping top, **in ground \$208.18 + GST**

115 mm OD 3mm tube flat or sloping top, **bolt down \$273.86 + GST**

168 mm OD 3.4mm tube flat or sloping top, **in ground \$282.70 + GST**

168 mm OD 3.4mm tube flat or sloping top, **bolt down \$363.21 + GST**

All Product is made to order at this stage. A 50% deposit required with order. Hold downs are included with bolt down bollards.

A Reminder of Why You Treat



When I first saw this post soon after it was installed in a national park I raised my eyebrows. The post is ironbark which is Durability Class 1 In Ground so why would you treat it? Well the sapwood was still on the post and while the heartwood core might be very durable (providing you do not set them in concrete) the outer sapwood is only Durability Class 4 for both in ground and above ground applications. In other words the untreated sapwood of ironbark is rated the same as the untreated sapwood of pine. Specifiers look up a technical document and see Ironbark is durability Class 1 In Ground and often do not realise that that rating does not apply to the whole piece. The sapwood at ground level has decayed away, as it had to, and left the bottom rail sitting in mid air. Well what do you do?

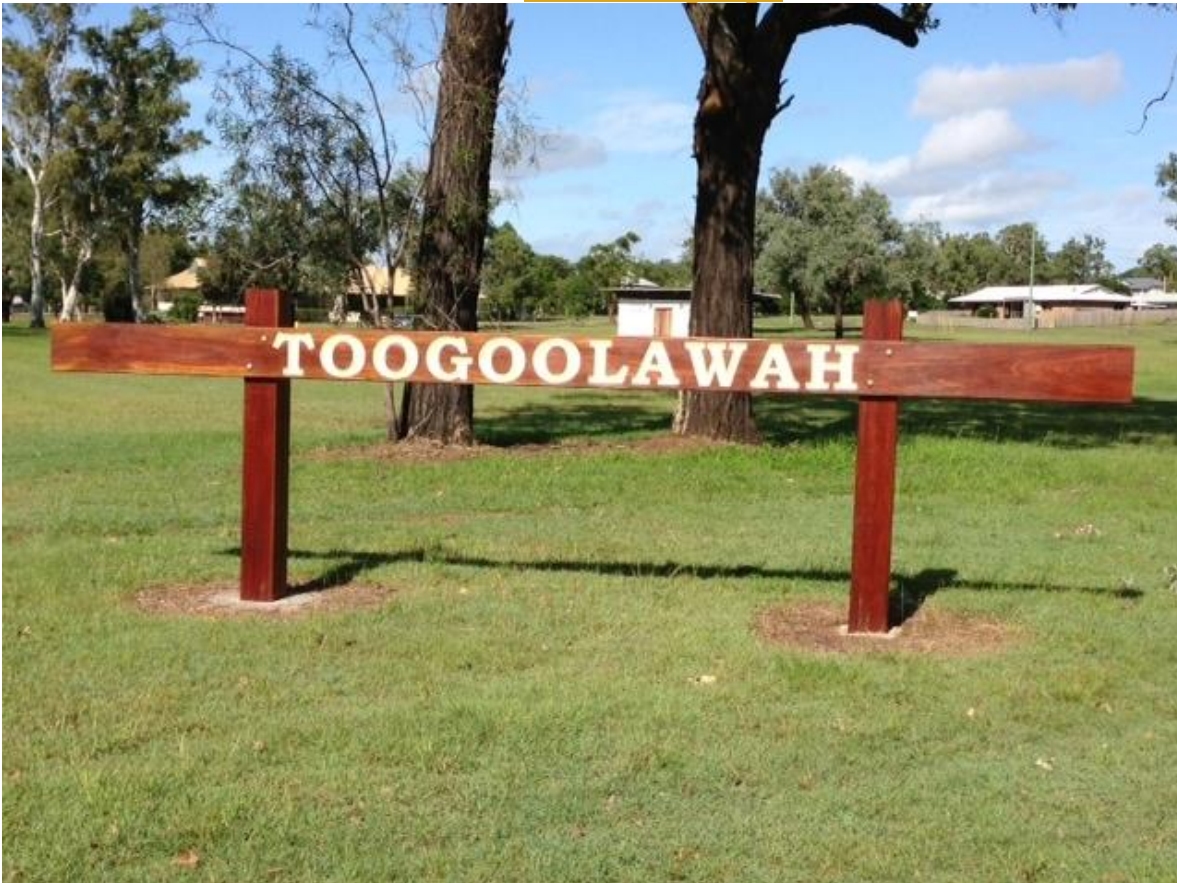
I built a shelter to the customer's specification in the same park and the posts were required to be treated to H5. When completed there was a call - "You have put CCA posts in our park". "Well yes, that is what you asked for". At the time, the Timber Utilisation and Marketing Act was in place in Queensland so H5 could only be supplied in CCA. Next time we were up there we coated the posts with Tanacoat

which has been proven to seal CCA. So what do you do if you do not want CCA? Doing nothing is not an option as the image shows. It is all explained in my Timber Preservation Guide, have you purchased a copy yet?

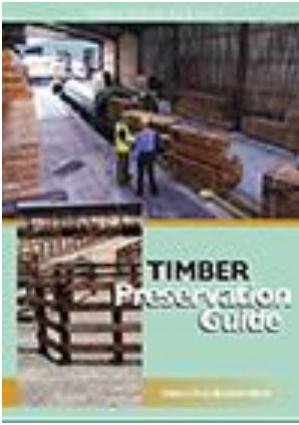


You can physically remove the sapwood totally as we did with these posts we prepared for a job we did for Fiona Robbe of Architects of Arcadia Pty Ltd. The posts look great after they have come out of the lathe. It is a bit expensive though for most jobs unfortunately. In my Timber Preservation Guide I give a case history of a work around for treated natural round posts in a playground situation. See below for details to purchase your copy.

Routed Signage



Infrastruction has competitive pricing on hardwood routed and painted signs. This example is made from 300x50 dressed spotted gum. The top of the sign is rounded to shed water as in our handrail profiles. The sign is mounted onto Pioneer Posts, The stainless steel caps are not fitted yet. Contact us about your signage and post requirements.



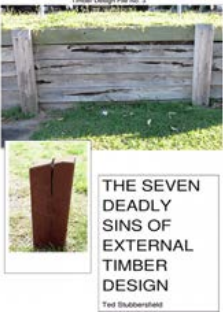

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There are four ways to purchase the Timber Preservation Guide.

Using a Credit Card:

1. As a [Amazon Kindle eBook](#) for US\$33.00
2. As a [Amazon Paperback](#) for US\$33.00 + postage from US.
3. Not a member of Amazon? Purchase from [Createspace Estore](#) for US\$33.00 + postage from US.

Direct Deposit: 4. Paperback posted from Australia for quicker delivery \$37.50 + \$10.00 Express Postage (within Australia). Email edgarstubberson@gmail.com or call 07 5462 5532 and we will advise payment details. Already purchased a draft? Go to the Dropbox folder and download the latest file. Do not release the file outside of your office. I am only releasing the file to earlier customers.

<p>The 7 Deadly Sins of Timber Design</p>	<p>Deck and Boardwalk Design Essentials</p>
	
<p><u>Table of contents</u></p>	<p><u>Table of Contents</u></p>
<p><u>Order Guide</u></p>	<p><u>Order Guide</u></p>

All our guides can be seen at http://www.outdoorstructures.com.au/timber_guides.php

Consultancy Services by Ted Stubbersfield

The stories I am now hearing about substandard material and performance are frightening. If you are looking for quality materials and good performance I can work with 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. to ensure you receive good performance from your next timber project.

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

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