# Ted's News August 2020

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The Capabilities of External Gluelam (Not a paid advertisement)



One of my deepest friendships I have developed over the years in the bridge business is with Dan Tingley the team at <u>Wood Research and Development</u> (WRD) and <u>Timber</u> <u>Restoration Systems</u>. They just sent me this article which I am delighted to share with you.

"WRD recently developed the preliminary design for an attractive guyed arch solution in treated engineered glulam as an alternative bridge style to a suspension pedestrian bridge application. This design featured pinned arches at their supports which lean inwards over the deck to draw the pedestrian's eye to a focal point where the two arches virtually meet at the apex. This design has the flexibility of being constructed in sections and being stood up and joined over the river or being

fully assembled alongside the river and then craned over to its final resting place in a single lift. The deck is supported on transverse beams each connected to the arch by two guy wire cables on each side of the bridge. These guys create an interesting visual elevation to the bridge depending on whether the guys are visible or not.

The proposal which spanned 55m was designed in accordance with AS5100 and AS1720. The main support arches rise 7.5m above the proposed hardwood timber abutment bents where the heels are anchored in bearing sole plates. Bents were chosen for this proposal to raise the structure above a 1 in 100 year flood level. This style of bridge is equally at home on a cast in-situ concrete abutment set in the stream bank."

This isn't just a theoretical design, see the article below on the Australian Timber Design Awards



If you think 55 metres is impressive, and it is, what about this 120 metre span design they did for me in 2012. But don't try doing this with normal Australian beams. These are special imported glulams that resist wetting and drying.



## **Only Trust Your Mother**

Recently, when a friend was investigating a school playground that was proposed to be made from imported natural rounds, he asked the supplier about their durability. The reply included a comment that the timber resists decay and has the highest possible fungi and termite resistance rating. Well, it does in Europe at least, as I have said, only trust your mother. With regards to this image, you can fill this crack but I certainly would not trust anyone that puts what we would class as low durability timber direct into concrete, but then, that is just my opinion. I have written about this problem twice. See:

Robinia playground timber Larch playground timbers

I was engaged by Athol Quinsey of Moduplay to do a more detailed report on Robinia. I am sure Athol would be pleased to share this with you Ph 1800 806 145 or <u>athol@moduplay.com.au</u>

# Why Don't We Check?



The screws in this new work are in a straight line, but the drawings I have show that they are to be staggered! Not having screws in a straight line is Timber 101 but we have not mastered the basics yet when it comes to external timber construction. Surely lesson one is again "Only trustv your mother" so inspect." There really should be someone engaged who knows timber to review the plans and then keep an eye on construction at the start of each important stage. The damage is done now and you can't fix it easily, the joists will soon be split and life will be lost. It would have cost less than \$1000 to tidy up the plans which would have provided a decent timber specification and the details required to ensure good construction and years of additional life.



And this is why you check!

### Australian Timber design Awards

# Note that this award has now passed but the links to the project are active

Back in the January newsletter I had an article on the Nappan bridge in Canada which was designed here in Australia. Voting for the people's choice award for the Australian Timber design award is open now. Strike a blow for Australian Timber design excellence by voting for it. Unsure? <u>Check the article</u> and video.



### A Big Win Against Plastic Cladding



I wrote an article in December 2019 about a win by property owners against builders who used timber lookalike but flammable plastic cladding on their apartments (look for *What has a Big Mac and Cladding got in common*). This has since gone to appeal and the builder lost again. The logic of using a flammable material in the first place defies any reason this old sawmiller can muster. The same applies to using this type of material in boardwalks - check out this video. Somebody thought it

was a good idea.

#### A Story from the Late Bronze Age

As this will interest a few of my readers so I should mention that I have completed my Magnus Opus. Well, maybe not a Magnus Opus but with 18 months of my life, 9 pages of references and 625 footnotes it was a lot of work just the same. The hardest part was writing a technical book that is very readable, but then I have had a lot of practice with my <u>timber guides</u>.

Obviously, the book has nothing to do with timber as it is a commentary on the Old Testament Book of Ruth. It is the story of a stony broke and pushy foreign widow marrying the richest man in town. The story is woven around the barley harvest hence the cover image, and is set in the late Bronze Age. An award winning author said of my latest effort, "Your commentary on Ruth is quite extraordinary. It is massively researched – must have taken you years to research and write. And you write so well.



<u>Copies can be purchased from Amazon</u> in paperback or Kindle or just email me and I will send you a PDF, gratis.

I hope to have a link to the book I am working on now for next month's newsletter. It is definitely out of left field but I guarantee all of you will like it. Spoiler alert, it is a cookbook!!!

### Earn CPD Points through eClassroom



The Seven Deadly Sins of External Timber Design, which explains how to avoid many of the common problems that beset timber design, has recently gone up on the eClassroom website. You will be surprised how easy it is to design timber structures and landscaping that ages gracefully. It is time to start earning CPD for the next year points with what is proving very popular course. Face to face training is going to be difficult for a while yet but the three courses now on eClassroom which include Outdoor Timber: Design and Specification, and Architectural Timber Batten can be undertake in the safety of your home. Coming soon to eClassroom will be two additional new courses - Timber Joints and Designing for Durability.

## Need a Timber Consultant or Expert Witness?

I have over 40 years' experience in the industry and can assist you with many of your timber needs.

**Inspection** – I can assess timber products on their performance, fitness for purpose or cause of failure. I also examine whether best practice was used in design and construction. I have recently completed inspections on boardwalks, bollards, support beams and external timber furniture.

**Grading** - Quite literally, I have written the book on the subject. Recent experience has shown that up to 30% of timber supplied may not be to grade.

**Design** - I can provide detailed technical drawings and advice. I can also review already prepared drawings.

**Reports** - I have authored many books on timber and can prepare a report providing recommendations and practical instructions on to how to rectify issues.

Please note as I am now employed a Senior Timber Consultant with the firm BCRC all large and complex consultancies and requirements for an expert witness will be handled in conjunction with them. Existing consulting arrangements remain unchanged and I am also available to assist on small projects. For more information see <u>www.bcrc.com.au</u>



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