

# Vehicle Bridges

- **Suitable for construction & emergency vehicles**
- **Detailed for Durability**
- **Vandal & Termite resistant**
- **Low noise**

Outdoor Structures Australia (OSA) has developed a range of vehicle bridges suitable for use as residential access bridges, golf courses and general public use in subdivisions. While it may be common to see access bridges with only 5 tonne capacity, the reality is that the first real load on most building sites is a fully loaded concrete truck.

OSA believes that vehicle bridges should be able to carry the loads that can reasonably be expected. This could vary from a fully loaded truck to a utility. Because of this vehicle bridges are available in a range of capacities (governed by deck thickness) from a full unrestricted speed A160\* load down to a lighter 2.5 tonne. Considerable effort has been put into this design to avoid the problems associated with conventional timber bridges such as fastener damage and the tendency to deteriorate into an "old rattler". A distinctive feature of our vehicle bridges is that all fastenings for timber over 57mm thick are from underneath.

The standard bridge is supplied with a hardwood kerb (200x200 or 125x125 depending on application) spaced above the deck. Bridges are normally supplied fully assembled



The vehicle bridges are designed using a combination of codes including the Austroads Bridge code Code (AS 5100) and the Timber Design Code (A.S. 1720.1) There is also reference back to older codes such as NASRA. OSA's Consulting Engineer specializes in timber design after years of bridge design and construction with the Queensland Main Roads. This means that our bridges are developed from a deep understanding of the bridge code and the detailing needed to ensure a long life for timber components.

\*For the technically minded The A160 load models a 160kN axle distributed via dual wheels to a bearing area 400mm wide x 250mm long and spaced at 2.0 metres centres transverse to the bridge.



**Outdoor Structures Australia**  
*outlasts and outperforms*

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## A160 Bridges

The need to provide house blocks with heavy vehicle and emergency vehicle access can be provided with our A160 bridge. This bridge is available in spans up to 6.0m and an overall width including kerbs of 3.45 metres. The bridge can be joined on corbels to provide bridges longer than 6.0m. The decking for the A160 bridge is fastened from underneath and sprung loaded to the log girders which ensures there is minimal rattle. This avoids the damage caused to the decking and sub-frame by heavy spikes and screws. The kerbs are 200x200 and there is a tapered lead into the bridge.



## Golf Course Bridges

The golf course bridges are designed to carry a light maintenance vehicle and are similar to the A160 bridge with the fastenings from underneath. The decking however is lighter depending on the load carried and the kerb is 125x125 spaced 100 mm above the deck.

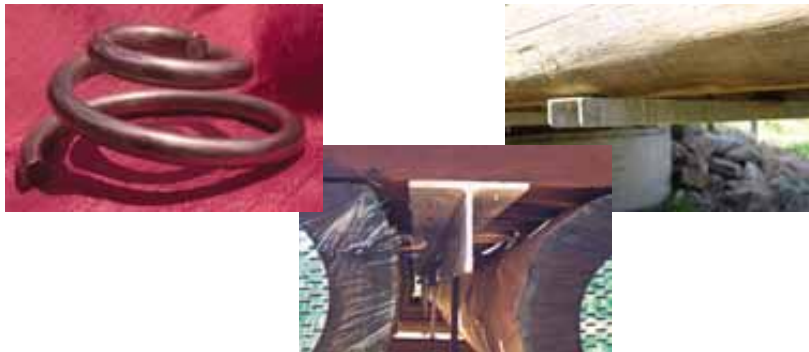


## 4 Wheel Drive Bridges

To fasten from the top is more cost effective but the thickest decking that can be fastened with a 100mm stainless screw is 57mm! Adopting this thickness deck allows us to build a lower priced bridge for a 2.5 tonne Gross Vehicle Mass. This should be suitable for most SUVs and '1 ton' utes.



Details of Outdoor Structures Australia's under bridge construction for decking over 57mm



## Technical Support

OSA has written the only technical publications on building timber golf course infrastructure in difficult climates.

These can be downloaded from our website [www.outdoorstructures.com.au](http://www.outdoorstructures.com.au)

