Steel Foot Bridges

Stuart Series of long span bridges

Optional diagonal decking shown

- **Solid Construction**
- **Vandal Resistant**
- **Detailed for Long Life**
- **Customised handrails available**
- **Hi-tech paint system**

Outdoor Structures Australia (OSA) has developed the Stuart range of steel bridges in parallel flange channel and universal beams to meet the wide needs of designers and specifiers. The Stuart range of long span steel bridges remembers John McDougall Stuart our long distance explorer who first crossed Australia from north to south in 1862. Unlike Stuart who had to have three attempts, we get it right the first time.

OSA has manufactured high quality and economical timber footbridges for many years but these have length limitations effectively of 10 metres. As well as the need to provide longer bridges, there was a need to offer different and almost unlimited aesthetics through handrails which are able to meet the overall theme of a project. Arched Bridges to a maximum grade of 1:8 are also available at extra cost.

Our steel footbridges normally incorporate pre-oiled Deckwood, OSAs own patented premium grade hardwood decking which has proven durability and weathering characteristics though grated steel is also available to allow sunlight access to plantings below the bridge. Designers also have available a unique range of timber railings such as our Cruiseliner (as in ship railing) profile from which to choose. Stuart Bridges are available painted with Ameron PSX70. The manufacturer claims this hi-tech paint is equal to galvanizing, retains 60% gloss after 12 years and graffiti wipes off.

Footbridges are supplied fully assembled and ready for installation, which gives considerable savings in planning and construction times.

For economy in materials cycle bridges come in 2.1m & 2.4m and pedestrian bridges come in 2.0m & 2.3m widths. (1.8m and 2.5m trussed option).

OSA steel bridges are designed for 5 kPa live loads as required for the AustRoads Bridge Code (AS 5100) and for the more stringent 4.5 kN concentrated load. Typical bridges are designed for a Load Factor of 1.5 but they can be designed for the more stringent Load Factor of 1.8 (AS 5100) if crossing railways or major roads. Handrails are normally designed for 0.75 kN/m but can be modified to carry the crowd (crush) loadings if required.Sections are kept large to keep the natural frequency outside the vibration problem range which can often be an annoyance in large span pedestrian bridges.

For the channel and universal beam bridges, the handrails simply attach to the sides which means that your handrail detail can easily be accommodated. Commercially available railings can be used. Unless specifically requested crowd (crush) loadings are not used for railing design.

Outdoor Structures Australia

outlasts and outperforms

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Stuart Cruiserliner

Our cruiseliner top rail profile is incorporated into a handrail system using steel posts and stainless wires.

Stuart Queenslander

The attractive aesthetics of an old Queenslander railing is re-created in heavier sizes that meet the bridge code. 125x100 posts are at 1.5m centres.

The rail is available painted to your colours or unpainted for finishing on site by your construction team.

(This handrail style does not suit an arched bridge).

Stuart Lockyer

This handrail is more in keeping with the rustic look of our standard log bridges. It is particularly suited to natural bushland areas and easily incorporates boardwalk approaches..

(Images used illustrate handrail possibilities).

Bikeways

The word footbridge is frequently used to describe a bridge that will be both a pedestrian access and a bikeway.
To avoid confusion, bikeways should never be called footbridges as handrail requirements and width requirements are very different.

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Technical Support

OSA has written a comprehensive 32 page technical publication on light bridges.
This can be downloaded from our website
www.outdoorstructures.com.au