



PermaStruct® Composite Truss Bridge



FRP Engineering Specialists

PermaStruct®

PermaStruct® Composite Truss Bridge is a modular system for pedestrian bridges, work platforms, footpaths spanning up to 8m.

PermaStruct® Composite Truss Bridges have numerous advantages being lightweight, corrosion resistant and quick and easy to install making it a cost effective option over larger built up beam bridges. The bridges corrosion free durability allows it to excel in harsh environments.

Although designed as a modular system, PermaStruct® Composite Truss Bridge can be custom designed and built to suit different requirements & conditions. It has a higher strength to weight ratio than steel, offering significant design & erection advantages. PermaStruct® Composite Truss Bridges are certified to comply with all relevant Australian standards.



PermaStruct Composite at Darling Harbour / Cockle Bay in NSW

Please note that the PermaStruct® FRP Truss Bridge is a design copyright to Perma Composites® Pty Ltd and must not be reproduced or copied in 2 or 3 dimensional forms without prior, written authorization from Perma Composites® Pty Ltd.

For more info please contact us on info@permacomposites.com.

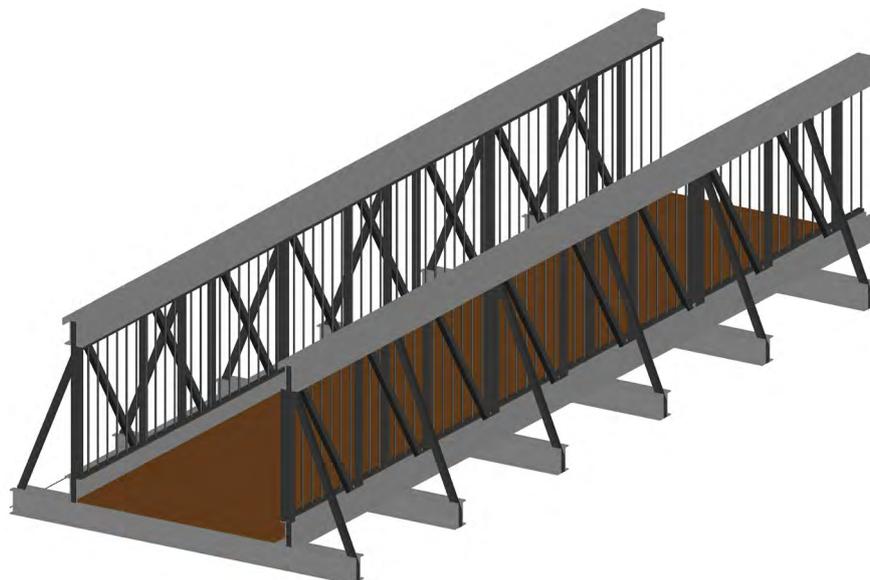
DESIGN CONSIDERATIONS

PermaStruct® Composite Truss Bridge has been designed to suit pedestrian loading of up to 5 KPA and a maximum width of 1.5 m. However custom design service is available for individual projects. It is designed in accordance with AS 5100, AS 1657 & Euro COMP.



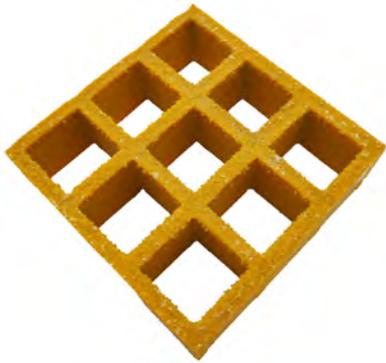
PermaStruct® Composite Truss Bridge is ideal for spanning small watercourses, gullies and industrial sites etc. due to its non-corrosive structure. 316 SS fixings are used to further aid its durable nature. It is therefore a modular system for spans up to 8 m each. Larger spans may be possible for custom projects or the 8m modules can be repeated to create larger spans.

PermaStruct® Composite Truss Bridges can be manufactured in either Isophthalic polyester resin or vinyl ester resin depending on its intended use and environment conditions. Isophthalic resin is suitable for most locations, while vinyl ester resin is available for acidic or alkaline industrial situations.



DECK FINISHES

PermaStruct® Composite Truss Bridge can be supplied a range of various decking options to suit your loading requirements, site conditions, aesthetics and long term maintenance plans.



STANDARD MESH

PermaStruct® Standard FRP Mesh is available in 25 mm and 38 mm thickness. It is an ideal deck option for industrial bridges & decks. It has a standard grit for maximum slip resistance (P5 Rated) and has a 32 x 32 mm Hole Size, ideal for industrial applications. PermaStruct® FRP Standard Mesh can also be custom made to a range of RAL Colour Code colours including some of the below colours.



MINI MESH

PermaStruct® Composite Mini Mesh in 21mm or 38mm thickness is an ideal deck option for most projects where drainage from deck surfaces is required. PermaStruct® Mini Mesh has a 12 x 12 mm Hole. It also can be provided with a smooth grit option suitable for barefoot applications such as water parks. We also offer to custom manufacture in a wide range of RAL colour code finishes to suit your project.



MICRO MESH

PermaStruct® 21 mm or 38 mm Thick FRP Micro Mesh is the strongest of the mesh options due to its small hole sizes and thick load bars. The small holes and smooth grit make it very comfortable for barefoot use, as Micro Mesh has an 8 x 8 mm Hole Size. PermaStruct® FRP Micro Mesh can also be custom made to a range of RAL Colour Codes.



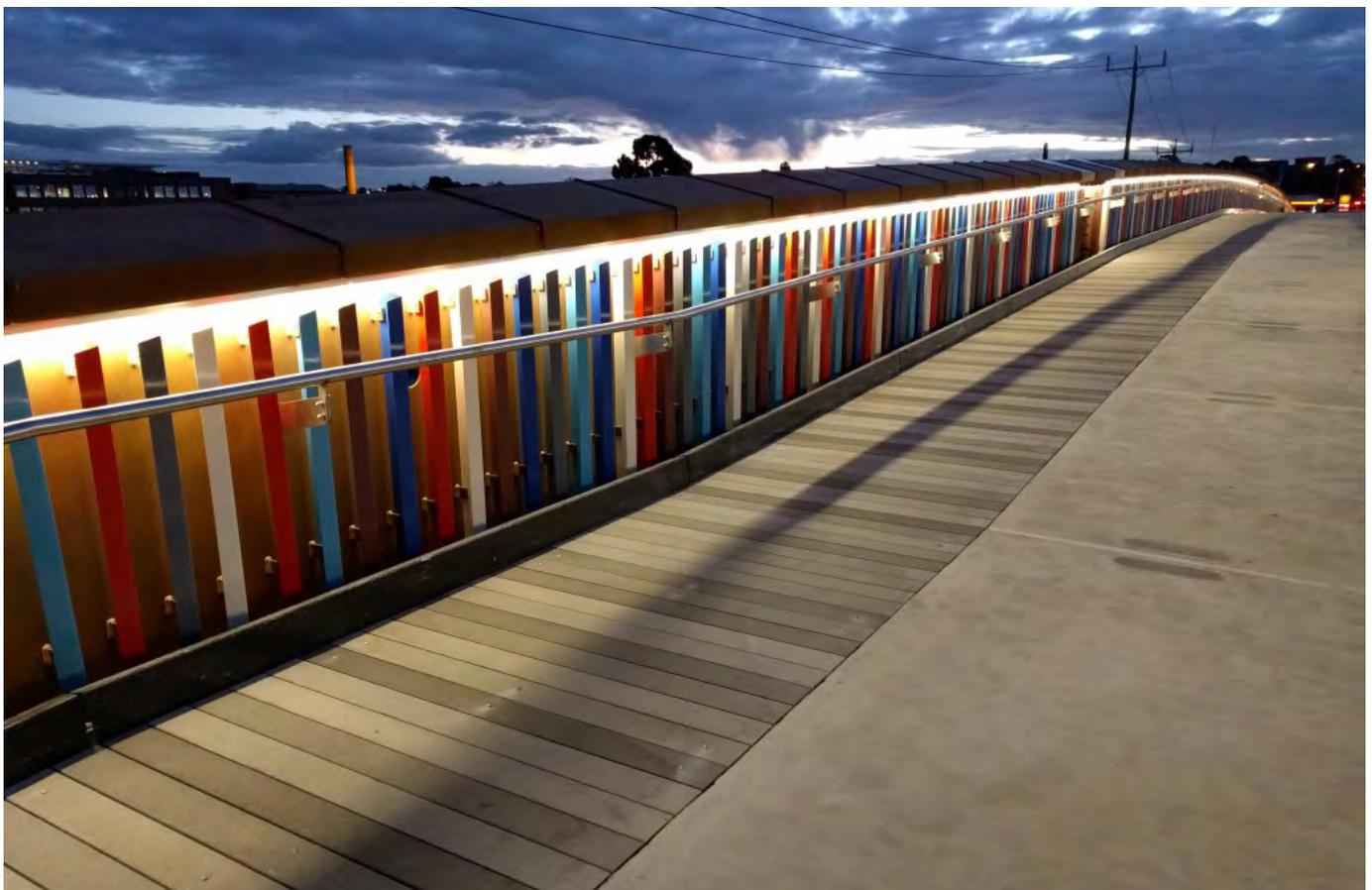
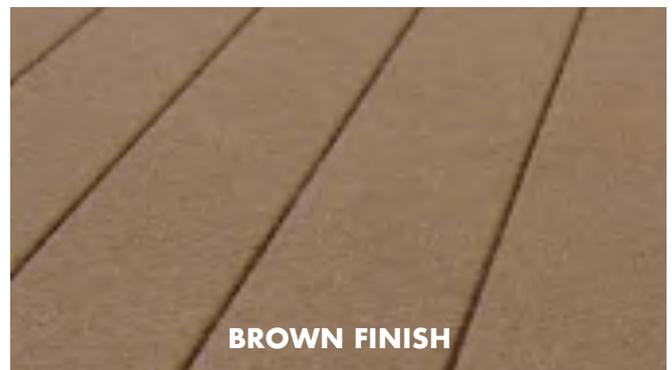
146 HEAVY GRAIN DECKING

PermaTimber® 146 Heavy Grain Decking is ideal for projects where aesthetics is preferred over structural integrity. It requires smaller joist spacing than FRP. It comes in a wide range of colours, namely, French Oak, Mykonos Teak, Amalfi Charcoal and Walnut.

DECK FINISHES

COMPCRETE

PermaStruct® FRP Composite Deck is ideal for projects that require minimal exposure to the ground beneath the deck and where aesthetics is a key requirement. PermaStruct® FRP Composite has a standard 40 mm Thickness and comprises of a series of PermaStruct® FRP C Channels connected together through an FRP Rod System. PermaStruct® FRP Composite has a gritted anti slip surface and also comes in a wide range of colours, which can also be manufactured in multiples colours as seen below. The profile of the Composite can be increased for additional strength.



Pictured Above: West Gate Distributer Bridge - Victoria

PermaStruct® Composite Truss Bridge Guide

HANDRAILS

PermaStruct® Composite Truss Bridge base design has an existing truss barrier and a standard top rail however a number of various handrail systems are normally incorporated with it.

ALUMINIUM

PermaStruct® FRP Truss Bridge can use aluminium infill panels in its design. The advantage of using aluminium is that it maintains the strength of the overall structure and non-corrosive properties, while also blending in smoothly with FRP. It also relatively quick to install.



Pictured Above: Barkers Bridge - Western Australia

STAINLESS STEEL

PermaStruct® FRP Truss Bridge can also utilise stainless steel wires in its design. The advantages of this are similar to aluminium, with PermaStruct® FRP Square Handrail used as stanchions.



Pictured Above: Rottnest Island - Western Australia



The Composite Experts

Innovation



Design



Engineering



Experts

Mining, Construction,
Engineering and Marine

PermaStruct®
confidence with every step

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