

ROAD BRIDGE DECK

Section No. S748

Australian Rollforming is a custom metal rollforming specialist, with the capability to rollform an almost infinite number of profiles in a wide range of metals.

Australian Rollforming's Road Bridge Deck is the original Lysaght Bridge Deck product that Australian Rollforming obtained with its acquisition of Lysaght Special Sections business in 2003.

The deck panels are rollformed from high strength, zinc coated steel conforming to AS1397 Class G450, have a net cover width of 381mm and are 90mm high. Panels are available in a large range of thicknesses, lengths up to 12 metres and the standard zinc coating is Z275. Other steel grades and zinc coating classes are also available on request.

Longitudinal Decking

Where existing decking is placed longitudinally it can be easily replaced with steel placed in the same direction.

Additional width of deck can often be achieved where the existing deck is laid transversely by installing steel bridge deck over new steel transoms.

Proper evaluation of the structural integrity of the main beams should be carried out by the design engineer.

Bridge widening can be carried out by cantilevering the cross beams.

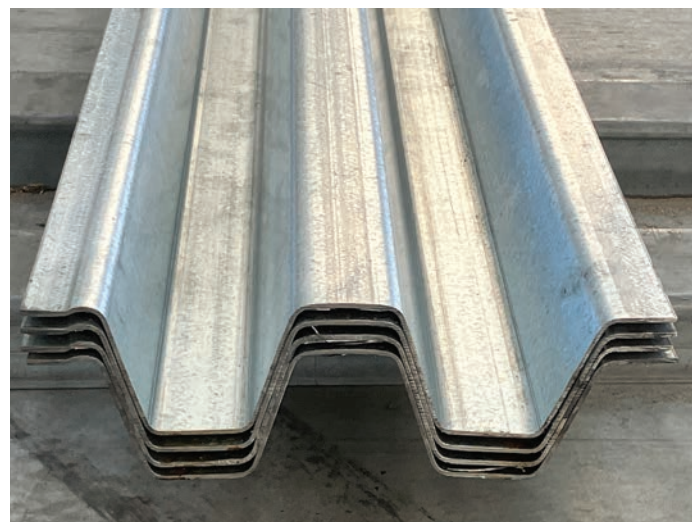
If longitudinal decking is laid so that the joints fall on one support, the span at each side of the joint must be designed as an end span.

If the joints in the decking are staggered, the continuity provided by the sections adjacent to the joint allow the use of internal spacings for all but the spans at the abutments.

Bridges of two lanes or wider may be redecked with longitudinal decking while the bridge remains partially open to traffic.

Transverse Decking

Where a bridge has main beams installed at suitable centres, steel decking may be laid across the beams without additional supports.



Concrete

Australian Rollforming Road Bridge Deck can be filled using most available wearing materials. Concrete can be used both as an infill and a running surface, or as a composite element with the steel deck with suitable shear connectors.

In all cases, the concrete must be made with 13mm maximum aggregate, be free of admixtures containing calcium chloride and not be made using unwashed beach sand.

Prefabrication

Where disruption to traffic has to be kept to a minimum, prefabrication of bridge sections using Australian Rollforming Road Bridge Deck and suitable steel beam supports should be considered. This approach simplifies and reduces the on-site work, thereby reducing the time that a bridge must be closed.



Fasteners

Side lap: No. 14-20 x 22mm hex head washer face self drilling screw.

To Timber

- M16 diameter x 100mm long coach screw
- M10 diameter U bolts
- M10 diameter bolts with half clamps

To Steel

- M10 x 30 hex head washer face thread forming screw
- M10 bolt with nut
- Huck No. 12 BOM, length to suit thickness of support, or equivalent

Walkways

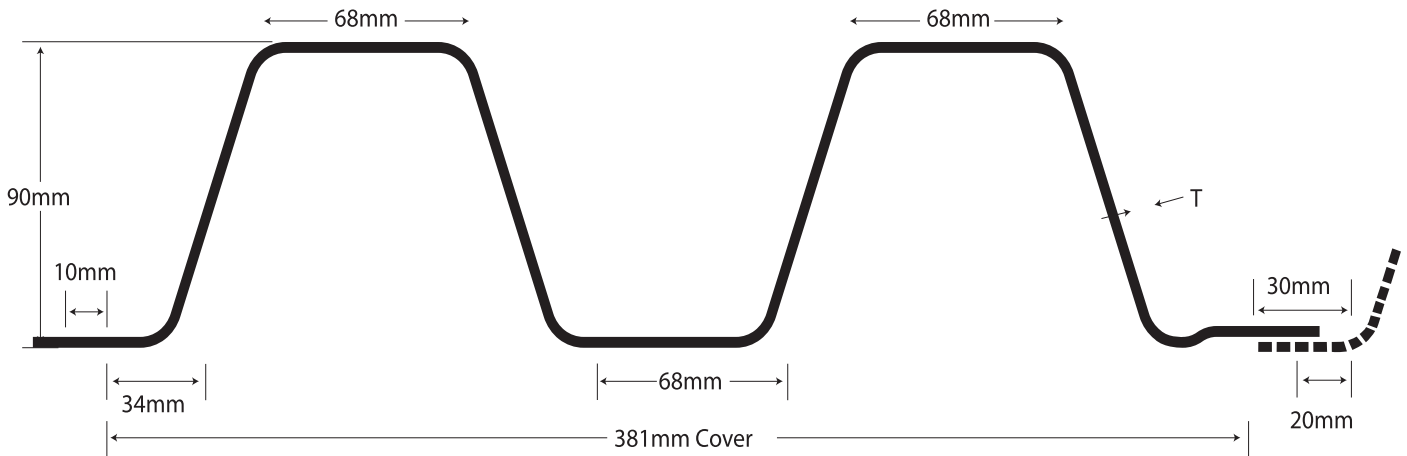
When using Australian Rollforming Road Bridge Deck, walkways can be easily provided at the time of construction.

Transverse decking can be cantilevered the width of the walkway if a suitable traffic barrier is installed to prevent vehicular traffic encroachment.

When decking is placed longitudinally, the transoms can be cantilevered to carry the walkway.

Contact us to discuss your requirements.

Cross Section Profile



Sections Properties

T (mm)	For One Section					For Metre Width of Assembled Sheets			
	Area A (mm ²)	Mass per unit Length (kg/m)	Ixx (10 ⁶ mm ⁴)	Zx (10 ³ mm ³)	Rx (mm)	Area A (mm ²)	Mass per unit Area (kg/m ²)	Ixx/m (10 ⁶ mm ⁴)	Zx/m (10 ³ mm ³ /m)
1.2	778	6.2	0.9	19.3	34.4	2046	16.3	2.4	50.7
1.6	1018	8.1	1.2	25.7	34.7	2678	21.3	3.2	67.8
2.5	1590	12.7	1.9	39.6	34.2	4184	33.3	4.9	104.2
3.0	1908	15.3	2.2	47.6	34.1	5021	40.2	5.9	125.2
3.2	2035	16.3	2.3	50.0	33.9	5356	42.6	6.2	131.6
4.0	2544	20.4	2.9	60.2	33.6	6695	53.5	7.6	158.4