

# MANDURAH | marina footbridge

**Client:** Landcorp WA  
**Location:** Mandurah, WA  
**Value:** \$1.2 million  
**Completion Date:** April 2004

Comprising a composite steel box girder and precast reinforced concrete deck, this elegant 100m long cable-stayed footbridge, incorporating a 20m high tripod tower, links the heart of the city of Mandurah to the new marina and development at Dolphin Quays.

The Mandurah Marina is a world class facility located 72km south of Perth which was developed by LandCorp WA and has become the showpiece of the Mandurah and Peel Region. The opening of the bridge completed a pedestrian link that stretches all the way from the city centre to the North Harbour sea wall.





The Mandurah marina  
footbridge at sunrise



## special features

- The bridge required three 900mm diameter raked steel piles to be driven 1.6m into sediment 5m underwater. Piling works were carried off-barge and later filled with reinforced concrete prior to be cut-off to the correct level to accommodate the pre fabricated structural steel headstock.
- In conjunction with the piling subcontractor, Marine and Civil Pty Ltd, Bocol designed and fabricated a purpose-made driving template frame to ensure piles were installed to the correct orientation and position.
- Seven composite steel box girder and precast deck plank sections were fabricated off site and craned into position. Two temporary piers were erected to support the deck prior to the tripod and cable stays being erected.
- A land based 400 tonne crane and a 50 tonne crane was used to position and place the tripod over the centre piles and the structural steel headstock.
- 8 x 1243 KN UTS wire cable stays were utilised to support the bridge deck. The cable stays consisted of 19 x 7mm tendons encapsulated in a grout filled polyethylene duct. The cable tensions were adjusted so as to level the bridge to the required profile.
- Other miscellaneous works included steel balustrade handrails, bridge lighting, approach footpaths, landscaping and signage.

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