

---

# Railway Bridge Over Broken River

---

## Location

Broken River,, BENALLA VIC 3672 - Property No B6585

## Municipality

BENALLA RURAL CITY

## Level of significance

State

## Victorian Heritage Register (VHR) Number

H1061

## Heritage Listing

National Trust

---

## Statement of Significance

Last updated on - April 11, 2008

The Broken River Railway Bridge is of historical significance at a State Level for its association with the North-Eastern Railway from Melbourne to Wodonga (and later Sydney), one of Victoria's main trunk lines. It is also of scientific (Technical) significance at a National Level, as one of the main engineering structures on the line and as a particularly large example of an early Australian iron plate-girder bridge. At the time of construction, it was the longest metal girder bridge in Australia (in overall length) and remained so until the completion of the Echuca-Moama Railway Bridge (441.3 metres) in 1877. It was only the second bridge of its type built in Victoria, and is believed to be the first metal railway bridge both designed and fabricated within the colony.

Whereas the bridges of the earlier trunk railways, built in Victoria during the 1850s and 1860s, have brick and stone abutments and piers, with either stone arches or metal girders typically of the box-type, the North-East Railway to Wodonga is distinguished by its all-metal bridges which became a characteristic feature of the "light lines" built by the Victorian Railways during the 1870s under the direction of Thomas Higinbotham as Engineer-in-Chief. They were followed during the boom years of railway construction, by bridges that were almost universally of a simpler girder and trestle design, built either in steel or timber, or a combination of both.

The Broken River Railway Bridge was one of three major all-metal iron bridges built for the North-East Railway in 1870-3. These were the first structures of their type in Victoria. All were originally constructed to a similar design with either one or two principal spans of 100 to 126 feet in length, formed by half-through plate girders, over the main watercourse and a number of 42 feet approach spans, formed by deck-type plate girders. All girders were simply-supported, resting on piers formed by pairs of cross-braced cast-iron cylinders.

Believed to have been designed under the direction of Victorian Railway Engineer-in-Chief, Thomas

Higinbotham, all three bridges had a number of distinctive and somewhat unusual features including downward curved upper flanges at each end of the main span girders and transverse "flying" braces to provide additional stability at each pier.

The Broken River Bridge was the second of these bridges to be completed, opening for traffic on 18th August 1873. It has the second longest principal span, after the Ovens River Bridge, but was the longest in overall length with one main span in 16 approach spans totalling 241.7 metres.

Although larger iron box-girder and truss bridges had been built in Victoria for the Melbourne-Bendigo and Geelong-Ballarat Railways ten years prior to the North-East Railway bridges, these had been constructed out of ironwork fabricated in Britain and then shipped to Victoria in sections for final erection on site. The North-East Railway was the first railway in Victoria to incorporate bridge iron-work that was both fabricated and constructed in the colony.

Classified: 17/08/1994

Hermes Number 67860

Property Number

---

*This place/object may be included in the Victorian Heritage Register pursuant to the Heritage Act 2017. Check the Victorian Heritage Database, selecting 'Heritage Victoria' as the place source.*

*For further details about Heritage Overlay places, contact the relevant local council or go to Planning Schemes Online <http://planningschemes.dpcd.vic.gov.au/>*