

# ALBION VIADUCT



RAIL BRIDGE (ALBION VIADUCT) SOHE 2008



1 rail bridge albion viaduct over maribyrnong river keilor side view



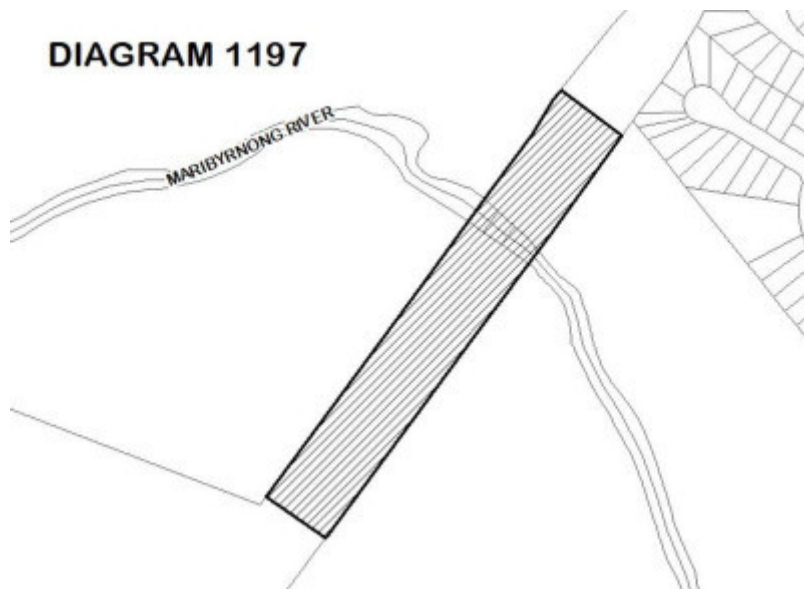
RAIL BRIDGE (ALBION VIADUCT) September 2016



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Albion Viaduct Extent Aerial June 2021



Albion Viaduct VHR Extent June 2021

## Location

KEILOR EAST, BRIMBANK CITY, MOONEE VALLEY CITY

## **Municipality**

BRIMBANK CITY

MOONEE VALLEY CITY

## **Level of significance**

Registered

## **Victorian Heritage Register (VHR) Number**

H1197

## **Heritage Overlay Numbers**

HO5

HO107

## **VHR Registration**

September 19, 1996

## **Amendment to Registration**

June 10, 2021

## **Heritage Listing**

Victorian Heritage Register

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## **Statement of Significance**

Last updated on - November 23, 1999

What is significant?

The "Albion viaduct" was constructed by the Victorian Railways in 1927-29 to carry a new double track goods line over the Maribyrnong River. The new line enabled trains from all parts of the state, except Gippsland, to have direct access to the Tottenham marshalling and sorting yards. The viaduct is 1,257 feet (383.13 metres) long between abutments and 180 feet (54.86 metres) above water level. The structure comprises two steel girders supported on twelve steel framed towers.

How is it significant?

The Albion viaduct is of scientific, architectural and historical importance to the State of Victoria.

Why is it significant?

The Albion viaduct is scientifically and architecturally important on account of its large size, and for the adoption of unusual cost effective design features such as the use of two girders per span to carry the double track, the use of K bracing in the towers, and the use of broad flange beams as columns. At the time of its construction it was the largest trestle bridge in Australia, and until the construction of the Sydney Harbour bridge was the highest railway bridge.

The Albion viaduct is historically important as part of the infrastructure associated with the development of the Melbourne railway marshalling yards at Tottenham in the 1920s. These yards were constructed to relieve congestion in the Melbourne Yard, located near the Spencer Street station, caused by the construction of suburban passenger platforms associated with the electrification of the suburban railway network.

## Permit Exemptions

### General Exemptions:

General exemptions apply to all places and objects included in the Victorian Heritage Register (VHR). General exemptions have been designed to allow everyday activities, maintenance and changes to your property, which don't harm its cultural heritage significance, to proceed without the need to obtain approvals under the Heritage Act 2017.

**Places of worship:** In some circumstances, you can alter a place of worship to accommodate religious practices without a permit, but you must [notify](#) the Executive Director of Heritage Victoria before you start the works or activities at least 20 business days before the works or activities are to commence.

**Subdivision/consolidation:** Permit exemptions exist for some subdivisions and consolidations. If the subdivision or consolidation is in accordance with a planning permit granted under Part 4 of the *Planning and Environment Act 1987* and the application for the planning permit was referred to the Executive Director of Heritage Victoria as a determining referral authority, a permit is not required.

Specific exemptions may also apply to your registered place or object. If applicable, these are listed below. Specific exemptions are tailored to the conservation and management needs of an individual registered place or object and set out works and activities that are exempt from the requirements of a permit. Specific exemptions prevail if they conflict with general exemptions.

Find out more about heritage permit exemptions [here](#).

### Specific Exemptions:

The following permit exemptions are not considered to cause harm to the cultural heritage significance of the Albion Viaduct, Keilor East and Sunshine North.

#### *Emergency works*

- Temporary emergency works in the event of severe damage or failure of the structure which poses an immediate risk to the structure's conservation or to public safety. Where these works do not meet the requirements of other exemptions on this list, Heritage Victoria is to be notified within seven business days of the emergency works taking place and a long-term repair methodology is to be approved by the Executive Director. This exemption is to be used as a last resort option only and it is expected that those situations will be avoided via routine inspections and cyclical maintenance of the bridge or viaduct.

#### *Maintenance*

- Minor repairs and maintenance which replaces like with like. Repairs and maintenance must maximise protection and retention of significant fabric and include the conservation of existing details or elements. Any repairs and maintenance must not exacerbate the decay of fabric due to chemical incompatibility of new materials, obscure fabric or limit access to such fabric for future maintenance. NOTE: This exemption is not intended to allow for the cumulative replacement of large amounts of the fabric of an item. A permit will be required if the replacement of large amounts of fabric is necessary. If there is uncertainty about the requirement for a permit, advice should be sought from Heritage Victoria. Wherever possible, maintenance and repair works should use fixings methods and construction methodologies to match the original.

- Maintenance and repairs which allow for the safe operation of rail services to occur including:
  1. Works to the deck including rail track and sleepers, ballast and infrastructure works.
  2. Works to electric or electronic signalling equipment provided it does not exceed the footprint of existing signalling equipment.
  3. Works to stanchions, overhead wiring, power lines and other cables required for operational and safety purposes.
  4. Installation of electrical and fire services and security lighting.
  5. Removal, replacement, and installation of safety barriers.

#### *Public safety and security*

- The erection of temporary security fencing, scaffolding, hoardings or surveillance systems to prevent unauthorised access or secure public safety which will not adversely affect the significant fabric of the place provided that temporary structures are removed within 30 days of erection.

#### *Graffiti*

- Works to manage and remove graffiti. Removal and management of graffiti will be undertaken in such a way as outlined below that it does not damage the fabric or aesthetics of the registered place.
- Steel. Application of fully sacrificial anti-graffiti coating systems such as saccharide or wax is permit-exempt. Solvent or caustic based paint strippers only may be used provided they are thoroughly rinsed off, and the rinse water does not flow over the abutments and concrete tower bases.
- Concrete abutments and tower bases. Application of fully sacrificial anti-graffiti coating systems such as saccharide or wax is permit-exempt. Solvent based paint strippers only may be used provided they are thoroughly rinsed off.
- Exempt cleaning works including the removal of light soiling and sacrificial graffiti barriers are limited to low pressure (below 300 psi) cold or hot water or steam and pH neutral detergents and brushing and scrubbing with non-metallic brushes. Note: Surface patina may be present on the steel and concrete and if so needs to be preserved during maintenance and cleaning.

#### *Signage*

- Removal, installation, repair or replacement of non-commercial and non-illuminated signage including interpretative, directional, public safety and other signage, provided the works do not involve the removal or destruction of any significant fabric.
- Signage must be located and be of a modest size so as not to obscure or damage significant fabric of the place. It must be able to be later removed without causing damage to the significant fabric of the place.

#### *Landscape around and below the bridge*

The following permit exemptions are for existing landscape elements and also allow for some new landscape elements.

- Slashing, mowing, pruning, removal of shrubs and trees, disease and weed control, planting and replanting and maintenance to care for existing plants.
- Emergency tree works to maintain public safety.
- Repair, maintenance and replacement of hard landscape elements such as steps, paths, gutters, drainage, edging, fences, barriers and gates. This includes work to the Shared User Path that extends along the north side of the river and to the existing unmade paths and roads on the south side of the river.
- Introduction of park furniture including seats, bins, fencing and the like as required, providing this does not directly interface with or obscure significant fabric of the place.
- Removal of environmental and noxious weeds.
- Vermin control activities.

#### *Fire suppression duties*

- Fire suppression and firefighting activities such as fuel reduction burns and fire control line construction.

#### *Existing utilities infrastructure within the registered land*

- All works to maintain and manage the existing power poles and lines.

#### *Riverbank and waterway management*

- All works to manage the riverbank including remediation/stabilisation works as required, providing the works do not affect the heritage fabric.
- Waterway management works providing the works do not affect the heritage fabric.

## *JUHI (Joint User Hydrant Installation) Pipeline*

- Repairs, maintenance and replacement.

Construction dates	1927,
Heritage Act Categories	Registered place,
Other Names	Maribyrnong River Viaduct, Quarter Mile Bridge, RAIL BRIDGE (ALBION VIADUCT), (RAIL BRIDGE) ALBION VIADUCT,
Hermes Number	4910
Property Number	

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## History

### Contextual History:History of Place:

During the late 1920s the Victorian Railways constructed extensive gravitation and goods train marshalling yards at Tottenham, on the west outskirts of Melbourne, to relieve congestion in the Melbourne Yard closer to the city. The capacity of the Melbourne Yard had been reduced by about one fifth owing to the construction of new suburban platforms associated with the electrification of the suburban railway system.. The Tottenham yards were to deal with the marshalling and sorting of goods traffic from all parts of the state except Gippsland. Their location was on the direct route of the Northern, North-Western and Western lines and during 1928-29 a new cross country line was constructed to enable the North-Eastern line to also have direct access. This line, some eight miles in length, left the North-East line just south of the present Jacana station and connected with the Northern line just north of Albion station.

A survey and cost estimate for the line was commenced in 1920 and in December 1926 the government authorised its construction at a cost of 452,000 pounds. The route traverses the basalt plains and crosses three deep gullies cut by the Maribyrnong River, Spring Creek and the Moonee Ponds Creek. Much of the cost of the line was for the construction of bridges spanning these gullies. The largest gully, at the Maribyrnong River, was spanned by a steel trestle bridge or viaduct some 1,257 feet (383.13 metres) long between abutments and 180 feet (54.86 metres) above the water level. The trestle bridge at Glenroy, over the Moonee Ponds Creek, is 200 feet (60.96 metres) shorter and 65 feet (19.81 metres) lower than the Albion Viaduct.

The double track broad gauge (5 feet 3 inches) line had 90 pound per yard rails and full ballast to take the heaviest class of traffic expected in the future. The Railway Construction Branch commenced construction on 1 March 1927 and the line was opened for traffic on 1 July 1929. The total cost was approximately 498,800 pounds which included 116,000 pounds for the Albion viaduct.

### HISTORY OF PLACE

The Albion Viaduct was designed by Wilfrid Dinsey Chapman, MCE and erected by the Railway Construction Branch under the direction of C H Perrin, MIEAust, Chief Engineer for Railway Construction. The girders were fabricated by G W Kelly & Lewis Pty Ltd. Johns & Waygood Limited fabricated the six smallest towers and A Challingsworth fabricated the remainder.

The Albion and Glenroy viaducts are important on account of their size and for the adoption of unusual design features, namely, the use of two girders per span to carry the double track, the use of K bracing in the towers, and the use of broad flange beams as columns. At the time of their construction they were the largest trestle bridges in Australasia. The Albion viaduct contains 1,737 tons of steelwork.

The railhead was extended from Albion to facilitate delivery of plant and material. Steelwork was therefore

delivered to and stacked on the plateau level. The tower steelwork was lowered and girders launched from a specially built Titan type traveller running on the new track.

This itself is a formidable structure, about 185 feet long over all, and 56 feet high above rail level. It comprises a large electrically driven compound winch on a framing supported by two bogies, operating various hoists from a large trolley travelling on a steel track, so arranged that the various portions of the towers, girders, and so on, can be picked up at the back of the traveller and carried out to their final position in the structure, the traveller thus building the bridge in front of it as it advances.

The placing of a girder by this method was achieved in an average time of thirty minutes. The average number of men employed at the site was 79. Particular care was taken during windy weather and no serious accidents occurred during construction. On 14 June 1929 two C class locomotives were run onto the completed structure to conduct technical observations and note deflections. At the time of its completion the viaduct was 50 feet higher than the tallest building in Melbourne, and until the erection of the Sydney Harbour bridge it was the highest railway bridge in Australia.

During 1961 the up line was converted to standard gauge (4 feet 8 1/2 inches) and in 1959 the viaduct was repainted for the first time. This massive task using brushes and sprays, took three years to complete. Altogether six tons of red lead and oil, 1,560 gallons of paint and 455 gallons of paint solvents was used.  
Associated People: Owner PUBLIC TRANSPORT CORPORATION;

## **Extent of Registration**

Heritage Act 2017 NOTICE OF REGISTRATION As Executive Director for the purpose of the Heritage Act 2017, I give notice under section 53 that the Victorian Heritage Register is amended by modifying a place in the Heritage Register: Number: H1197 Category: Registered Place Place: Albion Viaduct Location: Keilor East and Sunshine North Municipality: Brimbank City and Moonee Valley City All of the place shown hatched on Diagram 1197 encompassing part of Lot 1 on Plan of Subdivision 616072, part of Crown Allotment 2232 and 2095 Parish of Cut-Paw-Paw, part of Crown Allotment 2478 and 2306 Parish of Doutta Galla, and part of Crown Allotment 2E, Section 10 Parish of Doutta Galla 10 June 2021 STEVEN AVERY Executive Director

*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/>*