11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

The criteria adopted by the Heritage Council in November 1996 have been used to determine the cultural heritage significance of the place.

PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

- 3.14 Developing an Australian engineering & construction industry
- 3.14.2 Using Australian materials in construction
- 3.8.7 Building and maintaining roads
- 4.2 Supplying urban services
- 8.1.1 Playing and watching organised sport
- 8.1.4 Enjoying a natural environment
- 8.13 Living in cities and suburbs
- 8.5.4 Pursuing common leisure interests
- 8.10.5 Advancing knowledge in science and technology

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 203 Road Transport
- 209 Technology and technological change
- 304 Timber industry
- 405 Sport, recreation and entertainment

11. 1 AESTHETIC VALUE*

Canning Bridge is a good example of a large timber bridge with cross-braced driven piles. The texture of the structure created by the horizontal, vertical and diagonal timber elements complement the gentle curved shoreline of the river. (Criterion 1.1)

Canning Bridge is an important landmark when viewed from the Swan and Canning Rivers, Kings Park and the Kwinana Freeway and is used as a landmark by many sporting groups including running, cycling and rowing clubs. (Criterion 1.3)

---

* For consistency, all references to architectural style are taken from Apperly, R., Irving, R., Reynolds, P. *A Pictorial Guide to Identifying Australian Architecture. Styles and Terms from 1788 to the Present,* Angus and Robertson, North Ryde, 1989.

For consistency, all references to garden and landscape types and styles are taken from Ramsay, J. *Parks, Gardens and Special Trees: A Classification and Assessment Method for the Register of the National Estate,* Australian Government Publishing Service, Canberra, 1991, with additional reference to Richards, O. *Theoretical Framework for Designed Landscapes in WA*, unpublished report, 1997.

The surrounding area is a significant cultural landscape comprising the low profile of *Canning Bridge*, *Raffles Hotel* (1937), the distinctive façade of *Applecross District Hall* (1934) and the streetscape of Applecross commercial centre. (Criterion 1.4)

11. 2. HISTORIC VALUE

From its origins as a ferry crossing, through to the construction of the original Canning Bridge (1849) and the construction of the current structure, the site represents changing transport systems in Perth since 1829. It has been replaced over time in response to expansion in the metropolitan area and changing transport technologies. (Criterion 2.1)

In conjunction with the Causeway, the original Canning Bridge (1849) formed part of the first road link between Perth and Fremantle. (Criterion 2.1)

Canning Bridge was a prominent venue in the VII British Empire and Commonwealth Games, held in Perth in 1962, as the setting for rowing events. (Criterion 2.2).

Canning Bridge eastbound (1937) was designed and supervised by E. W. Godfrey, Transport Engineer for the Main Roads Department from 1928-57, who was responsible for the design of all major road bridges in Western Australia during this period. (Criterion 2.3)

11. 3. SCIENTIFIC VALUE

Canning Bridge eastbound (1937) is representative of bridge building technology of the period with a special design feature provided by the unusual link mesh pedestrian fence. The construction of the almost identical timber structure in 1958 provides a good example of bridge duplication. (Criterion 3.2)

The structure of *Canning Bridge* illustrates innovative techniques of bridge conservation developed by the Main Roads Department in the 1970s. These include the reinforcement of deteriorating timber decks with concrete slabs, replacement of deteriorated karri half caps with steel and the repair and treatment of timber piles. (Criterion 3.3)

11. 4. SOCIAL VALUE

Canning Bridge is a cultural landmark that gives a sense of place to residents in the vicinity, as a the gateway to the Melville Shire when travelling west on Canning Highway and as a venue for activities including swimming, fishing, cycling, walking, yachting and as a picnic site. (Criterion 4.2)

Canning Bridge provides a vital and ongoing link in the road network of Perth, directly connecting the south-eastern and western suburbs of Perth. It also connects to the Kwinana Freeway, which links the south-eastern/western suburbs with the northern areas of Perth. (Criterion 4.2)

Canning Bridge is valued by the rowing community as the finishing mark for the annual 'Head of the River' rowing event. (Criterion 4.1)

The fishing platform is valued by the fishing community and was specifically included in Canning Bridge westbound (1958), to mirror a significant aspect of the 1908 bridge. (Criterion 4.1)

Canning Bridge is valued by the local community, as evidenced by its inclusion in the Municipal Inventory of South Perth in 2003. (Criterion 4.2)

12. DEGREE OF SIGNIFICANCE

12. 1. RARITY

Canning Bridge is significant as one of the few bridges in Western Australia comprising two adjacent structures built at different times. (Criterion 5.1)

It is rare as a substantial timber bridge, many of which within the Perth metropolitan area are progressively being replaced. (Criterion 5.1)

The fishing platform underneath Canning Bridge westbound (1958) is one of the few remaining of its kind. (Criterion 5.2)

12. 2 REPRESENTATIVENESS

Canning Bridge is a good representative example of the standard design and construction of timber bridges in Western Australia during the period of the 1930s and 1940s. (Criterion 6.1)

The bridge demonstrates the innovative techniques of bridge maintenance from the 1970s developed by the Mains Road Department. (Criterion 6.1)

Canning Bridge is representative of the work, both in design and construction, of E. W. Godfrey, who was Chief Bridge Engineer of the Main Roads Department, from 1928-57. (Criterion 6.2)

12. 3 CONDITION

Canning Bridge is in good condition. Engineers from the Department of Main Roads carried out a five yearly inspection in August 2005.

12. 4 INTEGRITY

Canning Bridge has a high degree of integrity. As a ferry crossing since 1829 and by means of a succession of bridges since 1849 it has been an integral link between the port of Fremantle and the settlement of Perth. The current structure has been in continuous use as a traffic bridge since 1937.

12. 5 AUTHENTICITY

Canning Bridge has a high degree of authenticity. Additions to the original structure, including re-decking, a concrete overlay, widening, replacement of half caps with steel on Canning Bridge westbound (1958) and strengthening of girders, have been carried out in a manner sympathetic to the original structures. This has resulted in the majority of the original fabric of both structures remaining.

13. SUPPORTING EVIDENCE

The documentation for this place is based on the heritage assessment completed by Cultural Heritage students of Curtin University of Technology under the supervision of Dr Jennifer Harris in October 2005, with amendments and/or additions by Office of Heritage staff and the Register Committee.

13. 1 DOCUMENTARY EVIDENCE

Canning Bridge spans the Canning River at the narrowest point between Como and Applecross, close to where the Canning flows into the Swan River. It comprises Canning Bridge eastbound (1937) and Canning Bridge westbound (1958), two timber structures designed and constructed by the Main Roads Department.[1]

Prior to European settlement, the area surrounding *Canning Bridge* was important to Nyoongar people as a tribal meeting place. Heathcote Point and the site in the region of the present day *Raffles Hotel* (1937) had symbolic spiritual associations and the area was used for fishing and camping.[2]

The name 'Canning' was given to the river by Captain James Stirling in 1827, in honour of the Rt. Hon. George Canning, Foreign Secretary at the time and Prime Minister of England later the same year. Other names within the locality were later derived from the name of the river.[3] The site where *Canning Bridge* would later be built was an important link from the port of Fremantle, where goods arrived, to the city of Perth, from the early days of European settlement. It was a significant ferry crossing and became known as 'Hell's Gate' because of its difficulty.[4]

The first bridge over the Swan River was at the Causeway. It was opened to general traffic in 1843 and it connected Perth by road to the tracks to Fremantle via the Canning area, and the track to South Guildford.[5] To create a continuous road transport facility along the tracks to Fremantle, the first bridge over the Canning River was built in 1849,[6] to a design by Superintendent of Public Works, Henry Trigg.[7] The bridge fixed the eventual alignment of what is presently known as Canning Highway, providing the main link to Perth, via the Causeway, until the Fremantle Road Bridge was constructed in 1866.[8] Tenders for the bridge were first called in the 'Perth Gazette' of 26 December 1846 but the prices were considered too high. Tenders were re-called in 1849 and a contract was awarded to an American Engineer, Solomon Cook, a well-known and successful engineer who had

---

1 Canning Bridge is treated as two separate structures by the Main Roads Department. Canning Bridge eastbound (1937) is Main Roads reference 913, and westbound (1958) is reference 912.

2 E-Mail correspondence between Shirley Connor, Assistant Heritage Information Officer, Department of Indigenous Affairs, and Chris Cahill, student at Curtin University of Technology on 8 October 2005.

3 Carden, F.G., *Along the Canning,* City of Canning, 1991, pp. 2-3.

4 Cooper, W.S., and G. McDonald, *A City for all Seasons*, City of Melville, 1989, p. 51

5 Florey, Cecil C., *Peninsular City,* City of South Perth, WA, 1995, pp. 11, 28-29.

6 *Perth - Canning Bridge to the Causeway* - Precinct 7, Department of Environment, Swan River Trust, Report No 28 1997

7 Florey, op. cit., p. 29

8 Crowley, F, *The History of South Perth*; Rigby Ltd, Perth, WA, 1962, p. 30.

worked in Western Australia for many years. He completed the bridge in four months at a cost of £400. The bridge was 520 feet long and 12 feet wide, with a deck 8 feet above high water. With river navigation such a feature of colonial life at the time, the central span was later extended to 24 feet to allow boats to pass underneath. In order to recoup its expenditure the government established tollbooths at each end of the bridge.[9]

There were several unsuccessful attempts to establish a public house on Canning Rd near the river,[10] including the 'Bridge Inn' for which a liquor licence was granted to the owner, Samuel Duffield in 1850.[11] One resident, recalling life in the area in 1855, described a popular hotel situated beside the original 1849 bridge and noted that the nearby bush area was surprisingly busy with 'scores of sawyers just back in the bush from the bridge, cutting down large jarrah trees 30ft in length and pit-sawing them'.[12]

Fault was found with the original 1849 bridge, in terms of its height, as it restricted the size of vessels that could pass beneath. The bridge was severely damaged as a result of flooding in 1862, and subsequently a second bridge known as Lower Canning Bridge was constructed in 1867. It was built by convict labour, addressing the faults directed on the original structure and repairing the damage sustained by the storm.[13]

From descriptions, the position of this bridge must have been very close to the present Canning Bridge westbound (1958). The 1867 bridge had 26 feet and 27 feet 6 inch navigation spans, with the 38 remaining spans being 13 feet 6 inch each with a total length of 572 feet long and 11' 2" traffic way width.[14] However, it was not without its problems, since:

> the roadway was too narrow for vehicles to pass one another. From each end up towards the centre there was a grade of about 1 in 10, so that it was not possible to see from one end to the other. To make matters worse, the approaches curved away in opposite directions at either end. The consequence was that it was quite possible for two drivers to come on to the bridge from opposite ends and not be aware of one another's proximity until they almost met at the top. I have seen this happen more than once, together with the foregone conclusion, which was that after argument, and language, one driver had to back his horse the whole way down the steep grade and off the bridge a very awkward and possibly dangerous proceeding.[15]

By the 1870s, traffic over the 1867 bridge had increased considerably, the result of the steady development of the district and the location of the bridge at the junction of several main roads.[16]

---

9 ibid.

10 Cooper & McDonald, op. cit., p. 155.

11 Crowley F., *The History of South Perth*, Rigby Ltd, Perth, WA, 1962, p. 30.

12 Letter from Alfred Douglas in *Swan & Canning Leader* 31 January 1930, quoted Florey, op. cit., p. 210.

13 Margetts, L., 'Bridging to South Perth', document of a conference speech made on 20 May 2002 by Lloyd Margetts, a Section Bridge engineer from the Main Roads Dept. of Western Australia.

14 ibid.

15 Quote regarding the 1867 bridge given by Civil Engineer J.E.G. Turnbull in 1911 to the WA Institute of Engineers, cited in Margetts, op. cit.

16 Crowley, op. cit., p. 36.

In 1896, the Canning Bridge Hotel, on the site of the present day *Raffles Hotel* (1937), was built and the surrounding area provided a popular holiday atmosphere for swimming, boating, fishing and prawning. Day-trippers from Perth made the journey by ferry and the 1867 bridge would have provided a landmark for the holiday destination.[17] In 1901, the first meeting of the East Fremantle District Roads Board was held at the Canning Bridge Hotel, which had become a focal point for many social activities. The few roads at this time, however, were described as little better than cleared tracks and although Canning Road was made of limestone it was very rough to travel.[18]

Following assessment of the bridge, it was deemed necessary by the order of the Engineer in Chief, C. Y. O'Connor to raise the centre spans to 19 feet above normal water level to allow for the passage of even larger vessels.[19] As a result the 'hump' became a feature of the bridge.[20] During the alterations, all heavy traffic was deterred from using the bridge as the decking had become loose through continual use by horses. To enable secure passage by horses, cleats were nailed into the decking to help the horses gain their footing.[21]

The area was a popular picnic location from the early 1900s and was used by children for swimming. A regular ferry service connected the bridge with Perth and Applecross. There was a light plank jetty on the Como shore, in the vicinity of the site of *Canning Bridge*, just south of Thelma Street. In March 1907, Melville Municipal Council called tenders to supply and hire out wheeled 'bathing machines' on the Melville Water foreshore, presumably to meet the rising public demand for mixed bathing.[22]

In 1907, the repaired 1867 bridge had become unsafe and work on a third bridge began in 1908. This was situated on an angle southeast of the present bridge and the earlier bridge was demolished. The arch over the navigation opening was flattened considerably, down to a gradient of 1 in 25, compared to the earlier previous bridge gradient of 1 in 10. The width of the new bridge was also adequate to allow the traffic of the day to pass each other safely. The 1908 bridge was 570 feet long, comprising twenty-four 20 feet spans, one 40 feet truss navigation span and two short five-foot spans bordering the navigational channel. It was 16 feet wide and much stronger than the bridge it replaced. The Roads and Bridges Department directed the work on the new bridge, which cost £2,023. A fishing platform was also added to the bridge soon after it was constructed.[23]

A nearby area (now known as Cloisters Foreshore), within view of the bridge at the site of *Canning Bridge*, was used as a campsite by homeless families during the period of the Depression between 1930 to 1933. This area

17 ibid, p. 63.

18 Uren, M.J. *The City of Melville from Bushland to Expanding Metropolis*; Melville City Council, Ardross, WA, 1975, p. 59.

19 Taylor, SA, *Crossings Across the Canning*; (Diss), 1972, p. 37.

20 Main Roads Board WA Plan 569 dated 18/8/1892, SROWA.

21 Taylor, SA, *Crossings Across the Canning*, (Dissertation), p. 37.

22 Crowley, op. cit., pp. 63-64.

23 Main Roads Dept, WA, Plan No. 569/Public Works Dept WA No. 13630, dated 2/3/1908, SROWA.

became generally known as the Canning Bridge Camps.[24] Children from the camp would cross the bridge at the site of *Canning Bridge* to attend Applecross Primary School and use the adjoining jetty as a swimming spot after school.[25] Currently a Heritage Trail exists from the southeast bank of *Canning Bridge* extending approximately one kilometre to the site of the Depression Camps. A plaque at the site commemorates the twenty-six families that lived there in the 1930s.

During the 1920s and 1930s, South Perth and Applecross slowly became more developed, due to sub-division of the land and surrounding areas into a mixture of residential blocks and market gardens. The increase in road transport necessitated the upgrade of Canning Road and, following many complaints on the poor condition of the 1908 bridge, the construction of a new bridge (Canning Bridge eastbound) commenced in July 1937, designed by E. W. Godfrey, Chief Engineer with the Main Roads Department.[26]

In order to demonstrate the strength and durability of karri timber, the West Australian government directed a series of major metropolitan bridges to be built with important structural elements of karri, including Canning Bridge eastbound (1937). The half caps were formed from sawn 14 inch x 6 inch karri, treated with a method known as 'fluarizing' that involved boiling the timber in a mixture of sodium fluoride and arsenic trioxide, producing an envelope of timber which was resistant to rot and termite attack.[27]

Canning Bridge eastbound (1937) was built downstream and on an angle to the 1908 bridge.[28] It was completed in 1937, and officially opened on 29 April 1938,[29] by the Minister for Works (Hon H. Millington MLA), in the presence of Lieutenant Governor Sir James Mitchell,[30] where he commented that it was the best constructed timber bridge he had ever seen.[31] The cost of the bridge and approaches was £24,830.[32] The plan was to demolish the 1908 bridge on completion of Canning Bridge eastbound (1937), however, it remained for the duration of the war in case the new one was damaged in enemy action and was finally demolished in the late 1940s.[33]

In 1937 Canning Road was renamed Canning Highway and was bituminised for the first time.[34] These major road works, encouraged by the South Perth

---

24 Burns S, 'The Camps at Canning Bridge'; Davey, K & Pendal, P (eds) in *The Vanishing Village*; City of South Perth Historical Society, 2nd Ed, 2003, pp. 1-7.

25 ibid, p. 5.

26 The Institution of Engineers, Australia, Western Australia Division, *Large Timber Structures in Western Australia*, 1998, Vol 1.

27 Margetts, L., op. cit.

28 Main Roads Dept WA, Series of Plans 1696, Drg 1, Sht 1, dated 23/4/1937.

29 Information from Main Roads Western Australia states that the bridge was completed sometime in 1937 with the opening occurring in 1938, some months after its completion.

30 *The West Australian,* 29 April 1938. Information from Main Roads Western Australia states that the bridge was completed in 1937 although the source of this information is not given. (See Asset Management Plan Bridge No.'s 0912 &0913 prepared by Regional Manager Metropolitan Region, Main Roads Western Australia held in HCWA file P16178)

31 Edmonds, Leigh, The Vital Link, p. 86.

32 Margetts, op. cit.

33 Edmonds, op. cit., p. 90.

34 South Perth Road Board Gazette, 30 November 1937.

Roads Board were originally instigated as a contribution towards alleviating unemployment during the Depression.[35]

In 1955, the Stephenson and Hepburn 'Plan for the Metropolitan Region, Perth and Fremantle' was released.[36] A major effect of the Plan was the change of the west to east alignment of the metropolitan area to north and south, with provision of a major freeway linking the existing centres of population with the anticipated growth areas. The first part of this major road was to be the Kwinana Freeway running from Perth, over the proposed Narrows Bridge, along the South Perth foreshore to link up with Canning Highway at Canning Bridge eastbound (1937). The subsequent increase of traffic on Canning Highway required that Canning Bridge eastbound (1937) be upgraded to a dual carriageway.[37]

In 1956, the Minister for Works, John Tonkin, announced that a new bridge would be constructed over the Canning River and would be erected on the exact location of the present one and would probably be constructed of concrete. However, within three months of the announcement a decision to build a bridge of jarrah instead of concrete was made and it was to be upstream of the existing bridge instead of replacing it.[38] The two structures would be six feet apart with traffic travelling eastwards on the downstream and westwards on the upstream.

The new £38,000 structure (Canning Bridge westbound) was due to be opened on 18 September 1958 but this was delayed because reclamation work near the bridge for the Kwinana Freeway was still being carried out.[39] It finally opened for traffic on 1 October 1958.[40] To accommodate new freeway on-ramps Canning Bridge westbound (1958) had to be three spans shorter than Canning Bridge eastbound (1937). The construction of Canning Dam in 1940 reduced the flood flows in the Canning River and this not only allowed Canning Bridge westbound (1958) to be shorter but also accommodated the shortening of Canning Bridge eastbound (1937) by three spans at the eastern end, resulting in matching 22-span two-lane timber bridges.[41]

Local residents who grew up during the 1950s recall fishing from the platform underneath Canning Bridge westbound (1958) and claim it was incorporated following community contribution and successful lobbying to the government for funds.[42] Others remember diving and jumping off the bridge, swimming through the water, shimmying up the pylons, along the bracing beams and back up on to the bridge.[43]

---

35 Florey, op. cit., p. 210.

36 Stephenson, G., and J.A. Hepburn, *Plan for the Metropolitan Region, Perth and Fremantle, Western Australia,* Government Printing Office, 1955; cited Margetts, op. cit.

37 Stephenson G & Hepburn JA, *Plan for the Metropolitan Region*.

38 *The West Australian* 3 July 1956, p. 1.

39 Taylor, SA, Crossings Across the Canning, pp. 45-46.

40 Main Roads Dept WA Plan Series 2648, includes notation of opening date.

41 Margetts L, 'Bridging to South Perth'

42 George Burnett conversation with Natalie James, 20/10/2005.

43 Daisy May Simpson, 13/5/1976 interview Chris Jeffrey, Battye Library OH133 and Ross Vance conversation with Bronwyn McGhee, 20/10/2005.

In 1962, Canning River was used as the rowing venue for the VII British Empire and Commonwealth Games. The two kilometre course finished at *Canning Bridge* and was chosen for its relative proximity to other Games events, its physical attractiveness and for its sheltered position on the river. The river was dredged, a clubhouse and boatshed were built, and the choice of course was justified when bad weather prevented rowing on all other waters in the Perth area.[44] After the Games the boathouse became the headquarters for the Rowing Association of WA.

Following the construction of the Narrows Bridge (in 1959), which facilitated a better connection with the city of Perth, there was a growth of development and population increase in the southern suburbs of South Perth, Como and Applecross. The resulting growth of traffic and increase in usage demonstrated the need for reviewing the adequacy of *Canning Bridge*, and in 1965 a £50,000 improvement plan was utilized to widen both *Canning Bridge* structures by 12 feet, giving each an extra lane.[45] The fishing platform was also extended and modified.[46] The stairs to the platform were removed and replaced by a planked gangway to the foreshore.

In 1976, the bridge deck on the Canning Bridge eastbound (1937) received a reinforced concrete overlay in order to prolong the life of the decking and timber superstructure.[47] The concrete overlay dried out the decking and superstructure and generally stiffened up the bridge.[48] Canning Bridge westbound (1958) received the same concrete overlay in 1984. At the same time the railings on both structures of *Canning Bridge* were repaired and repainted to improve their appearance.[49]

Between 1994 and 1996, both structures of Canning Bridge received substructure repairs including repair of many piles and concrete sheeting of the Como abutment.[50] The original karri halfcaps had deteriorated to such an extent under the ravages of termite attack that they were replaced with steel.[51] The outside of the timber had been protected by the fluarizing treatment, but termite attack and decay had commenced at bolt holes and similar weak points and *Canning Bridge* was left with just a shell of timber holding up the superstructure.[52] In 1997, the guardrail on both sides of the traffic path of the Canning Bridge eastbound (1937) was replaced by a two-rail steel system.[53] In 1998-99 *Canning Bridge* received substantial superstructure maintenance and the reinforced concrete overlay was replaced, extending its potential lifespan.[54] In order to facilitate activities

45 Edwards, C. J. and Willmott, N. J. [compilers] The official history of the VII British Empire and Commonwealth Games. pp. 8, 81-83. The Mercantile Press, Fremantle, 1962.

45 Main Roads Dept WA Plans Series 1696, dated 9/2/1965.

46 Large Timber Structures. Vol 2, Section 1 Pg 1056.

47 Main Road Department WA, Annual Report, 1976, & MRDWA Plans 7530 Series dated 0/1/1976.

48 Western Roads, August 1990, *Timber Bridges Need Tender Loving Care* by Bridge Section Engineer Lloyd Margetts: p. 7.

49 Main Road Department WA, Annual Report, 1984.

50 MRDWA Plan Series 9430 dated 29/7/1996.

51 Large Timber Structures, Vol 2, Section 1 pp. 1056-57.

52 Western Roads, *Timber Bridges Need Tender Loving Care*, p. 7.

53 MRDWA Plan 9730-0016/0017/0018/0019 dated 21/1/1997.

54 Main Roads Dept. Roads Outlook Western Australia 1987-97: p. 19.

including bicycle riding, jogging and walking, footpaths have been provided under the bridge to allow for safe crossing of Canning Highway.

The Rowing Association of WA headquarters, situated southwest of the *Canning Bridge,* is the centre of a number of different social activities, attracting crowds from school groups and the general public to the twenty different rowing meets the Association holds each year. Many of West Australia's private schools have strong associations with the Association and the area is used daily by students, some of which have noted that Canning Bridge is an important landmark to them. It is used as a major reference point by rowers and coaches, including a number of students from Aquinas College who refer to the bridge as 'home point', as after a long session on the river it is the last landmark on the return to the Aquinas College boat sheds. Parents of students often use the bridge as a vantage point to encourage and view their children as they pass under the bridge and the reasonably low height structure of the bridge facilitates this use.[55] Anglers have become accustomed to the students who use the course regularly and cheer or encourage them as they pass.[56]

From 1987, *Canning Bridge* was also the finishing mark for the 'Head of the River', the final event in the Perth private school rowing season. The course was similar to that of the 1962 Empire and Commonwealth Games, and the required section of river was closed for the full day event, which was held annually until 2009, when it relocated to Champion Lakes in Armadale.[57] To rowers, the bridge was the landmark that symbolised the end of the race.[58]

In 1998, following a report prepared by the Main Roads Department, many timber bridges were assessed for heritage value based on a given criteria. Accordingly, Canning Bridge eastbound (1937) was given a number 3 rating and Canning Bridge westbound (1958) a number 2 rating.[59]

In 2001, *Canning Bridge* was nominated for entry on the State Register of Heritage Places and was included on the City of South Perth Municipal Inventory of Heritage places in 2003.

In 2006, the area surrounding the *Canning Bridge* includes buildings of significant social value to the local and wider community, including *Applecross District Hall* (1934), *Raffles Hotel* (1937), the Canning Bridge Library and the Heritage Trail on the southeast foreshore that leads to the Depression Camp Site. *Canning Bridge* continues to be a significant landmark for the many clubs, associations, community groups and individuals in the area.

The portion of the river under the bridge became a Reserve and was vested in the Swan River Trust on 15 February 2008.

---

55 E-mail correspondence between John Callie, Head of Rowing at Aquinas College and Chelsea Payne, student at Curtin University of Technology on 20/9/2005.

56 Oral interviews held with fishers on platform, September 2005

57 'Schools End a Century of Tradition', *The West Australian*, 27/03/2009, p. 55.

58 Email correspondence from Chris Hawley, former Head of the River rower, 14/02/2006.

59 Large Timber Structures, pp. 1-6, based on ratings 1-5, 5 being highest heritage value.

In February 2010, the Department of Planning, on behalf of the WAPC compiled the *Draft Canning Bridge Precinct Vision*. This document outlines the following proposed changes for the existing Canning Bridge/s:

- Construction of a new bridge just south of the existing bridges;
- Removal of the existing southern timber bridge and replacement with a new bridge;
- Retention of the existing northern bridge for use by buses, taxi's and vehicles wanting to access the train station for passenger drop-off/pick up. [60]

13. 2 PHYSICAL EVIDENCE

Canning Bridge spans Canning River at the narrowest point where the River flows into the Swan River in Como and Applecross. The bridge consists of two adjacent timber structures designed and built by the Main Roads Department of Western Australia. The first structure, completed 1937, was designed and supervised by E. W. Godfrey, Chief Transport Engineer for Main Roads, and the second, almost identical, structure was completed 1958.

Canning Bridge eastbound (1937) has a total length of 465 foot (141.8m), an overall width of 51' 7" (15.7m) and an average clearance above normal water level of 19' 8" (6.0m). It consists of 22 spans, typically 20 foot (6.1m) apart except for the central navigational span, which is 40 foot (12.2m) wide. Each span typically consists of 12 timber stringers of wandoo and jarrah with one universal beam of steel. The navigational span has seven RSJ stringers. The bridge is supported on timber piles, typically eight per span, except for the navigational span, which has twelve piles. The piles have been potted at various locations and the majority have been epoxy wrapped at water level.[61] The deck consists of three traffic lanes 37' 5" (11.4m) wide and a footpath.

Canning Bridge westbound (1958) has an overall length of 474 foot (144.6m), a width of 45 foot (13.7m) and a clearance of 19' 8" (6.0m) above normal water level. It consists of 22 spans, typically 20 foot (6.1m) apart except for the navigational span, which is 40 foot (12.2m). Each span typically has 13 stringers of jarrah and wandoo, the navigational span having eight RSJ stringers. The bridge is supported on timber piles, typically eight per span except for the navigational span, which has 12 piles. The deck of the bridge consists of three traffic lanes 37' 4" (11.4m) wide and a 4' 11" (1.5m) wide footpath.

The timber pylons on both bridges are inscribed with roman numerals.[62] Both bridges are sealed in hot mix asphalt on the vehicular traffic lanes and the footpaths are timber decking overlaid with concrete.

The bridges carry water and electrical services. In the gap between the bridges is a 2' 2" (650mm) steel water pipe. Under the footpath on Canning

60 Draft Canning Bridge Precinct Vision, February 2010. Accessed www.planning.wa.gov.au

61 Main Roads Western Australia, Asset management Plan Bridge No.'s 0912 and 0913 Canning Highway over Canning River, Date issued 12/01/05. In HCWA file P16178.

62 These markings were probably present at time of construction. However, no evidence has been found to establish their purpose.

Bridge eastbound (1937) are two water pipes of 2 foot (600mm) and 1' 6" (450mm). Steel conduits for street lighting are located on the base of the guardrail on the right hand side of the footpath on the downstream (1937) bridge. A similar steel conduit is attached to the half caps adjacent to the left hand side of the footpath posts on the Canning Bridge westbound (1958).

The building of the fishing platform on Canning Bridge westbound (1958) emulates the platform on the third Canning Bridge built in 1908, which was specifically designated for fishing. It is now designated as a maintenance platform with a base area of 27' 7" x 19' 8" (8.4m x 6.0m), two promontories each 39' 4" x 7' 10" (12m x 2.4m) reached by a timber gangplank that adjoins the shoreline under the bridge. Both on the upper deck of the bridge and on the platform below are signs indicating that no fishing or jumping is allowed from the bridge.

The footpath on Canning Bridge eastbound (1937) has been widened to 2m, presumably in 1997 when new steel guardrails were added to each side of the traffic way. Canning Bridge westbound (1958) still has link mesh railing in place on the footpath side of the river, and although the piping of the fencing exists on the inside edge, the link mesh has been removed. Guardrails exist on the both sides of the traffic roadway fixed against the railings.

The area around *Canning Bridge* has seen continual development since the 1960s. As a result *Canning Bridge* is an important landmark with arteries leading off north and south into the Kwinana Freeway, east and west to the Canning Highway and east to Manning Road. The construction of Canning Bridge station in December 2007 for the Perth to Mandurah rail line has further impacted and changed the surrounding environment. The area around the bridge exhibits a mixture of land uses including wetlands, urban infrastructure and recreation.

On the Como side of *Canning Bridge* between the Kwinana Freeway and the river there are no built elements. The vegetation consists of grassed riverbanks and re-established areas of native flora including Salt sheoak (C*asuarina obesa)*, Geraldton wax (*Chamelacium uncinatumm)* Pencil pines (*Cupressus*) and a number of wattle and banksia species. The Swan River Trust controls the area.[63]

The forked pedestrian and cyclist approaches from Melville are landscaped with bitumen pathways providing access under and over the bridge to the surrounding precinct. Similarly pathways join the bridge north and south on the Como foreshores for cyclists, joggers and walkers. Connecting the paths is an underpass under the *Canning Bridge* on each side of the bridge providing the only safe link for pedestrians and cyclists to cross from one side of Canning Highway to the other and to gain access to each of the footpaths across the bridge.

The bridge is an entrance point for the Applecross commercial centre, of which the significant features are the former Applecross District Hall and the Raffles Hotel presently in the process of redevelopment. The redevelopment of the area on the hotel side of Canning Highway is planned to consist of

63 South Perth - Canning Bridge to the Causeway - Precinct 7, Department of Environment, Swan River Trust, Report No 28 1997

bollards and a dual use pathway, with lights and seating, following the curve of the river, a palm tree grove from the corner of the bridge to the hotel boundary and an avenue of palms on the northern promontory. The Bicentennial plaque of 1988 (an identical plaque exists on the south-west corner of the bridge) placed nearby by the Melville Historical Society, commemorating the construction of the existing and previous bridges, will be moved from its present position to the northern promontory and placed in a designated area with a drinking fountain and seating. The existing stone steps into the water will remain.[64]

13. 3 COMPARATIVE INFORMATION

There are approximately 2,300 bridges in Western Australia of which 1,586 are built from timber and 1,140 that were constructed prior to 1950.[65] There are 75 timber bridges on the Heritage Council of Western Australia database of Heritage Places including footbridges and ruins. Ten bridges constructed of various materials are on the State Register of Heritage Places and four of these are timber bridges. They are 03364 *Jalbarragup Bridge (ruin)* (1900) on the Blackwood River; 03551 *Suspension Footbridge* (1907), Collie; 03549 *Poole Street Footbridge* (1917), West Northam and 14558 *Guildford Road Bridge* (1937), Bassendean. *Guildford Road Bridge* is most comparable to Canning Bridge being of similar age, material and designed by Main Roads under Chief Engineer, E. W. Godfrey.

From the 1960s, major bridges were generally constructed of steel and concrete, the result of problems sourcing new timber for maintenance and re-building, coupled with the perception that timber bridges have a short life The maximum life of a timber bridge is usually 50 years although the timber used in construction prior to 1950 (wandoo) is a lot more durable then the timbers used in more recent years.[66] More recently constructed timber bridges include Barkers Bridge in Guildford (1950), the Middle Swan Bridge at Middle Swan (1957) and downstream Garratt Road Bridge in Bayswater (1971).

Besides Canning Bridge eastbound, the Chief Engineer for Main Roads Department during the 1930s, E. W. Godfrey, designed four other major timber bridges located on the Swan and Canning Rivers. These include the upstream Garratt Road Bridge, Bayswater (1934-35), *Guildford Road Bridge,* Bassendean (1936-37), Fremantle Traffic Bridge, Fremantle (1937-39) and Helena River Bridge, Guildford (1934-35). All of these bridges still remain in use and have undergone similar maintenance work by Main Roads Western Australia. Apart from the Helena River Bridge, all these bridges are listed on the local Municipal Inventory and the National Trust of Australia (WA) has classified both the Guildford Road Bridge and the upstream Garratt Road Bridge. The upstream Garratt Road Bridge, Fremantle Traffic Bridge and Barker's Bridge are in the Heritage Council's assessment program.[67]

---

64 Rizzo and Associates/Richards and Associates, Concept Improvement Plan (Figures 2, 3 & 4), Streetscape Improvement Plan and Guidelines, surrounds of the Raffles Hotel Site.

65 Main Roads Dept., Roads Outlook Western Australia 1987-97: p. 18.

66 Main Roads Dept., Roads Outlook Western Australia 1987-97, p. 19.

67 Heritage Council of WA website: www.heritage.wa.gov.au

Canning Bridge incorporates the features seen in a standard 1930s plan. The use of standardised bridge types built of timber, having 'no frills such as shaped beams, pressure treated piles or any other relatively costly treatments'[68] was one of the 'secrets of economical timber bridging'.[69]

Fishing platforms under bridges, such as the one on Canning Bridge westbound (1958) are becoming increasingly rare. Although others may exist, the platforms under the Mandurah Bypass and the Kwinana Freeway at Shelley are the only others able to be identified at this stage.[70]

13. 4 KEY REFERENCES

No key references.

13. 5 FURTHER RESEARCH

Archaeological investigation of the site may reveal information regarding the construction and use of earlier bridges.

68 MRD Standard Type 16' bridge Plan MRBWA 101 11 drawn March 1927; see also Main Roads Department of WA *International Training Course in Road Engineering, Vol 6 Bridges* and Contracts, p. 5.11 Fig 1A and Edmonds, Leigh, p. 87.

69 International Training Course, p. 5.2.

70 Conversation between Kane Moyle of RecFishWest and HCWA staff, 24/4/2006. See also 'Locations to Fish in the Swan and Canning Rivers' available at http://www.abc.net.au/perth/stories/s1498530.htm