Item Details

Name

South Creek Bridge (Eastbound)

SHR/LEP/S170

s170

Address

Great Western Highway ST MARYS NSW 2760

Local Govt Area

Penrith

Local Aboriginal Land Council

Unknown

Item Type	Group/Collection	Category
Built	Transport - Land	Road Bridge

All Addresses

Addresses

Records Retrieved: 1

Street No	Street Name	Suburb/Town/Postcode	Local Govt. Area	LALC	Parish	County	Electorate	Address Type
	Great Western Highway	ST MARYS/NSW/2760	Penrith	Unknown			Unknown	Primary Address

Significance

Statement Of Significance

South Creek Bridge (Eastbound) has local historic and representative significance. The siting and design of the bridge demonstrate twentieth century changes in the local alignment and character of the Great Western Highway, one of the State's earliest and preeminent European transport routes. This bridge's skewed design allowed a kink to be removed from the Highway as it crosses South Creek, and its cast-in-situ robust concrete beam design embodies the new standards set by the Main Roads Board and Department of Main Roads in the 1920s and1930s. The construction of a new structure adjacent, and removal of westbound traffic from the subject bridge demonstrates the increased traffic demands on the route since the bridge's construction in1934. South Creek Bridge (Eastbound) is capable of demonstrating the principal characteristics of concrete beam bridges of the period 1925-1948. The bridge is a large, neatly constructed concrete beam bridge in good condition, with one concrete railing system intact. The curved pier headstocks are unusual, and demonstrate the attention to detail and aesthetic sensibilities of the DMR and their favoured contractors in designing and constructing even relatively modest concrete bridges in this era.

Criteria a)

Historical Significance

The bridge has local historic significance through its ability to demonstrate a phase in the development of the Great Western Highway as it passes through the St Marys area. Through its alignment, design and subsequent change in status (carrying only one direction of traffic flow while a new bridge alongside carries the other) the bridge demonstrates changes in the local alignment and character of the highway over the twentieth century as the volume and weight of motor traffic and expectations of fast and safe road travel have increased. The bridge was constructed on a new, straight alignment, the skew built into the bridge allowing a kink to be removed from the highway as it crosses South Creek. Its cast-in-situ robust concrete beam design embodies the new standards set by the MRB and DMR to bring the State's main transport conduits into the motor age.

Criteria g)

Representative

The bridge is a large, neatly constructed concrete beam bridge in good condition, which is readily accessible for interpretation. The intact downstream railing and substructure of the bridge are capable of demonstrating the principal characteristics of concrete beam bridges of the period 1925-48. The curved pier headstocks soffits are unusual, and attractive. This feature demonstrates the attention to detail and aesthetic sensibilities of the DMR and their favoured contractors in designing and constructing even relatively modest concrete bridges in this era.

Integrity/Intactness

Moderate

Owners

Records Retrieved: 0

Organisation	Stakeholder Category	Date Ownership Updated
No Results Found		

Description

Designer **Builder/Maker**

DMR - individuals unknown

Physical Description **Updated**

South Creek Bridge (Eastbound) on the Great Western Highway is set in relatively flat, flood plain country. The approaches are slightly raised above the adjacent creek banks. The structure is a five span reinforced concrete beam bridge with five beams and cross girders at the piers and midspan. The beams have curved soffits, as do the soffits of the pier headstocks which are supported on three piers. With a skew of approximately 30 degrees, the end pier columns have chamfered outer faces flush with the bridge alignment, whereas the internal columns are rectangular. The original bridge probably had footways on both sides, but the current configuration has a footway on the downstream (northern) side, with the far side supporting the median of the highway, which has three lanes in each direction. The intact reinforced concrete railing on the downstream side is typical of concrete bridge of the era, with solid double endposts and pillared intermediates. The railing posts at each pier are supported by curved corbels coming from the pier cross girders. The westbound bridge consists of a plank deck supported on piers with circular columns.

Physical Condition **Updated** 04/17/2009

Original condition assessment: 'The structure is in good condition with no evidence of spalling or cracking. The railings do not appear to have suffered traffic damage.' (Last updated: 28/05/2004.)

2007-08 condition update: 'Fair.' (Last updated: 17/4/09.)

Modifications And Dates

The westbound bridge was constructed in 1986. The bridge also supports a pipe on its downstream face which detracts from its otherwise aesthetic lines.

Further Comments

Current Use

Road bridge

Former Use

Road bridge

Listings

Listings

			Records Retrieved: 1		
Heritage Listing	**Listing Title**	**Listing Number**	**Gazette Date**	**Gazzette Number**	**Gazzette Page**
Heritage Act - s.170 NSW State agency heritage register			8/18/2005 12:00:00 AM		

Procedures/Exemptions

Records Retrieved: 0

Section of Act	Description	Title	Comments	Action Date	Outcome
No Results Found					

History

Historical Notes or Provenance	Updated

South Creek Bridge crosses South Creek at St Marys, to the east of Penrith on the Great Western Highway. St Marys is named after the Parish of St Mary Magdalene, consecrated in 1840. (Kennedy, 1982, p. 107) South Creek has its headwaters at Harrington Park, near Camden, and flows north, joining the Hawkesbury River at Windsor. The Great Western Highway to Penrith is one of the oldest and most important road routes in the State. The first road in the colony evolved from a track between Sydney and Parramatta. By 1789 the Rose Hill Packet was ferrying people and goods up the Parramatta River, and in the same year a track was begun, three metres wide, hacked through the bush, between Sydney and Parramatta. By 1794, the track was widened and cleared to make it more suitable for carriages. Francois Peron wrote in 1802 that the road between Sydney Town and Parramatta 'is almost every where wide enough for three carriages to pass abreast, and bridges have been thrown over such parts of it, as are interrupted by the waters: so that the traveller meets with no obstacle on his journey.' (Peron cited in DMR, 1976, p. 9) By 1789 Europeans had travelled west of Parramatta and reached the Nepean River in the vicinity of Penrith, noting meetings with Aboriginal people and evidence of their activities. Under Governor King (1800-1806), settlement on the eastern bank of the Nepean River south of the Hawkesbury was sanctioned and squatting along the river in the vicinity of Penrith and on the lower reaches of South Creek was a widespread practice. (Rosen, 1995, p. 8, 11)

By 1813 most arable land in the Cumberland Plain had been occupied and with increasing pressure from a land hungry population, compounded by shortages due to drought and a caterpillar plague, there was an urgency to finding a means across the Blue Mountains. In 1813 wealthy free settler Gregory Blaxland along with William Wentworth the native born son of surgeon D'Arcy Wentworth, and Lieutenant William Lawson formerly of the NSW Corps and latterly of the NSW Veterans Company, and four servants set out from Emu Plains (opposite Penrith on the far side of the Nepean River) to Mt York. Construction began on a road from Penrith to Mt York roughly following the Blaxland, Wentworth and Lawson route in July 1814. In the same year milestones were installed along the Great Western Road as far as Penrith. (Rosen, 1995, pp. 35-7; DMR, 1976, p. 18)

Penrith was the first military depot on the road west from Sydney. Governor Macquarie established a courthouse there and also set aside a paddock of 3.2 ha to provide for travelling sheep and cattle crossing to Sydney from the mountains. The Nepean River was crossed by ford, and then ferry from the 1820s until the Victoria Bridge was opened in 1867. (Proudfoot, 1987, pp.86.) The gold rushes to the west of the Blue Mountains commencing in the early 1850s resulted in a tremendous increase in traffic on the Great Western Road between Sydney and Bathurst. Travel was on horseback or by bullock drawn drays or waggons, and the thin, hard wheels and hard hooves pounded and rutted the road. (DMR, 1976, p. 30) In 1865 the Parramatta to Penrith section of the Great Western Road was reported to be surfaced with 'metal', or stone flakes, and the bridges crossing Eastern, South and Wilsons Creeks were in a dilapidated condition. (DMR, 1976, p. 47) The Western Railway reached Penrith in 1863 and the town became a major railway depot, before and after the building of the line over the Blue Mountains. (Rosen, 1995, p. 74)

It is likely that two or even three generations of timber bridges crossed South Creek on the Great Western Road prior to the construction of the current bridge in 1934. Evidence of a previous crossing is located approximately fifty metres upstream. This crossing is evidenced by Bridge and Lachlan Streets which form a kink across South Creek. Lachlan Street is currently disused and is fronted by the remains of a 19th century building. The subject bridge is constructed on a skew on the straighter new alignment reflecting the changing relationship between roads and bridges in the 1930s and technological changes wherein bridges could be more flexibly designed to accommodate a smooth line of road, where previously lines of road were forced to bend to meet the straightest opportunity for a waterway crossing.

The current concrete beam bridge was constructed in 1934, one of over 1,000 bridges constructed by the Main Roads Board (MRB) and then Department of Main Roads (DMR) during the period 1925-1940. The MRB and DMR adapted existing standards of bridge design to meet the requirements of improved motor vehicle performance - they were generally wider than previously with an improved load capacity. The principal types of bridges constructed during the period were: reinforced concrete beam; concrete slab; steel truss on concrete piers; and timber beam bridges. Concrete was favoured in many instances because it was perceived to be a low maintenance material (The Roadmakers, DMR, 1976, pp.169, 170). Within the general group of beam bridges, the main longitudinal members have had various configurations ranging from a simple set of rectangular beams cast integrally with the deck, through beams with curved soffits, to flat soffit decks where the edge beams also form the bridge parapet or sidewall. Based on RTA bridge database records, reinforced concrete beam or girder bridges were the most common form of concrete bridge construction to 1948, with more than 160 extant. They have been very popular in NSW, and elsewhere, providing an efficient and often aesthetically pleasing solution to a wide range of crossing types.

A duplicate structure was constructed directly upstream of the subject bridge in 1986. The new structure carries westbound traffic and the 1934 structure carries eastbound traffic.

Historic Themes

Records Retrieved: 2

National Theme	State Theme	Local Theme
3. Economy	Transport	Unknown
3. Economy	Technology	Unknown

Recommended Management

Management Summary

Management

Records Retrieved: 0

Management Category	Management Name	Date Updated
No Results Found		

Report/Study

Heritage Studies

Records Retrieved: 1

Report/Study Name	Report/Study Code	Report/Study Type	Report/Study Year	Organisation	Author
Heritage Study of Pre-1948 Concrete Beam Bridges (Sthn, Sth West, Sydney)			2005		Burns and Roe Worley and Heritage Assessment And History (HAAH)

Reference & Internet Links

References

Records Retrieved: 3

Type	Author	Year	Title	Link
Written	Rosen, Sue	1995	Losing Ground.. An Environmental History of the Hawkesbury-Nepean Catchment	
Written	Kennedy, Brian and Barbara	1982	Sydney and Suburbs. A History and Description	
Written	Department of Main Roads	1976	The Roadmakers. A History of Main Roads in New South Wales	

Data Source

The information for this entry comes from the following source:

Data Source	Record Owner	Heritage Item ID
State Government	Transport for NSW	4309584

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