HERITAGE COUNCIL OF WESTERN AUSTRALIA

REGISTER OF HERITAGE PLACES - ASSESSMENT DOCUMENTATION

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)

- 3.3.3 Mining
- 3.7.3 Building and maintaining railways

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

- 202 Rail and light rail transport
- 303 Mining

11. 1 AESTHETIC VALUE•

Each element within the place is valued for its individual aesthetic characteristics, and together they form a significant group. (Criteria 1.1 & 1.3)

The architectural features in the brick construction of the Boulder Subway walls are aesthetically pleasing. (Criterion 1.2)

The places that comprise *Boulder Railway Station, Subway and Loopline* each have a landmark setting in the Boulder townsite or in the goldfields vista surrounding the town. Boulder Railway Station Building is a landmark associated with the approach drive, and the Rotunda is a pleasing element within the picturesque Park setting in front of Boulder Station. The Boulder Subway is a distinctive element in Boulder and is a marker between the town and the goldfields beyond. The war memorial by Porcelli is a fine example of his work. (Criterion 1.3)

The places that make up *Boulder Railway Station, Subway and Loopline* represent a series of markers along the Loopline Railway line and provide a significant visual aesthetic and contribute to the cohesiveness of the cultural environment associated with the Loopline Railway. (Criterion 1.4)

11. 2. HISTORIC VALUE

The construction and subsequent operation of *Boulder Railway Station, Subway and Loopline* was a result of the successful ongoing exploitation of the Eastern

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• For consistency, all references to architectural style are taken from Apperly, Richard; Irving, Robert and Reynolds, Peter *A Pictorial Guide to Identifying Australian Architecture: Styles and Terms from 1788 to the Present* , Angus & Robertson, North Ryde, 1989.

Goldfields, and in particular the Golden Mile. The Loopline operated between 1897 and 1976. (Criterion 2.1)

Boulder Railway Station, Subway and Loopline provides a fine example of the transport infrastructure of the Eastern Goldfields during the 1880s and 1890s in Western Australia when large numbers of workers, heavy machinery, ore and timber had to be moved efficiently between mines, townships and transport depots. (Criteria 2.1 & 2.2)

The Boulder Railway Station and Boulder Subway are representative of the growth of Boulder as the major residential and support and service centre of the Golden Mile mining tenements. (Criterion 2.2)

The Memorial (1920) in the Boulder Station Park was created by renown sculptor Pietro Porcelli to a commission by Metropole Hotel licencee, David Donaldson, whose son was killed while on active service during World War One, and is a focal point of the Anzac Day ceremony held in Boulder each year. (Criteria 2.2 & 2.3)

The riveted plate bridge girder of the Boulder Subway demonstrates technical expertise in its construction. (Criterion 2.4)

11. 3. SCIENTIFIC VALUE

The riveted plate bridge girder construction of the Boulder Subway demonstrates technical expertise. It was built before the advent of modern welding techniques and is significant in representing steel fabrication techniques of the early 1900s. (Criterion 3.3)

The structural competence and architectural achievement of the Boulder Subway, together with the central Pedestrian Subway to the roadway below and the railway above, is of considerable significance in demonstrating the expertise of the time in responding to transport requirements. (Criterion 3.3)

11. 4. SOCIAL VALUE

Boulder Railway Station, Subway and Loopline is valued by the local and wider community for its ongoing railway associations, its connection with Boulder's gold boom past, and for its considerable aesthetic and landscape appeal. Its importance to the community is demonstrated by the formation of the Golden Mile Loopline Railway Society which operates the line as a tourist attraction, and by the occupation of Boulder Railway Station Building by the Goldfields Historical Society from 1976 to c. 1995. (Criterion 4.1)

Boulder Railway Station, Subway and Loopline contributes to the local and wider community's sense of place as a significant reminder of the 1880s and 1890s goldrushes in Western Australia. (Criterion 4.2)

12. DEGREE OF SIGNIFICANCE

12. 1. RARITY

Of the original railway stations constructed on the Loopline Railway, Boulder Railway Station is the only complex remaining extant. (Criterion 5.1)

The Boulder Subway provides the only known example in the State of a subway built to its particular specifications, in particular regarding length, the number of tracks and the roadway carried by the bridge. The use of brick

faced parapet beams and semi-circular floor troughing is unique in Western Australia. (Criterion 5.1)

The riveted girder construction, gravity brick abutments and retaining walls of Boulder Subway represent a nineteenth century form of construction that is now obsolete and is becoming increasingly rare in Western Australia as subways are gradually being replaced to meet town planning and railway requirements. (Criterion 5.2)

12. 2 REPRESENTATIVENESS

Boulder Railway Station, Subway and Loopline, and associated elements which assist in understanding the place, represent a unique example of what was a typical turn of the century goldfields railway system. (Criterion 6.2)

12. 3 CONDITION

Boulder Railway Station, Subway and Loopline is in fair to good condition. Boulder Railway Station and the Loopline are maintained on a regular basis although some conservation works are required to restore the Railway Station Building. The Park, with the Rotunda and memorial are in good condition. The Boulder Subway is in poor condition. The brick is fretting in places and the girders and rivets are in an advanced state of corrosion. The railway line still traverses the rails over 3 of the original 7 lines, but no passenger traffic is allowed.

12. 4 INTEGRITY

Although no longer used for its original purpose, *Boulder Railway Station, Subway and Loopline* operates daily as a tourist railway facility and has retained a moderate to high degree of integrity.

12. 5 AUTHENTICITY

Boulder Railway Station, Subway and Loopline shows minimal evidence of any changes to the original fabric and displays a high degree of authenticity.

13. SUPPORTING EVIDENCE

The documentary evidence has been compiled by Irene Sauman, Historian. The physical evidence has been compiled by Laura Gray, Heritage Consultant.

Curtilage comprises Reserve No. 6662, consisting of Boulder Railway Station Yard; Reserve No. 32594 consisting of the Park at the entrance to Boulder Railway Station; and a narrow strip of land encompassing the Loopline and extending north from Boulder Station Reserve to Wittenoom Street, and south from Boulder Station Reserve to Forrest Street, and including both stations.

13. 1 DOCUMENTARY EVIDENCE

Boulder Railway Station, Subway and Loopline (1897-1903), consists of the remains of a turn of the century, narrow gauge railway complex, comprising a section of the Loopline Railway Line (1897 & 1902); Boulder Station Goods Shed (1898); Boulder Station Buildings, Platforms and Pedestrian Subway (1903); Boulder Subway and Pumping Station (1903); Kamballie Station (1903);

and Boulder Station Park, Rotunda and Memorial (c.1903; 1920), and the footing remains of the larger of the two pedestrian overbridges which were built at Boulder Station. Westrail operation of the line ceased in 1976. Since that time, the Loopline has been operated as a tourist railway by the Golden Mile Loopline Railway Society. The Loopline has been considerably shortened since 1989, by the encroaching Super Pit mine operations.

In June 1893, Paddy Hannan and his partners discovered alluvial gold 30 miles (48 kms) north-east of Coolgardie. A camp, known as Hannan's Find, quickly developed at the site, with bough huts and hessian and canvas structures erected along the edge of the track from Coolgardie. Many of these structures housed businesses to serve the prospectors who flocked to the area. Later that year, William Brookman and Sid Pearce located gold reefs three miles south of Hannan's Find, at what was to become Boulder and the Golden Mile. On 4 September 1894, Hannan's Find was declared the townsite of Kalgoorlie.[1]

It was another two years, on the 4 December 1896, before the camp at Boulder was declared a town site. Both towns grew rapidly, with most of the miners living at Boulder, largely because it was closer to their place of work on the Golden Mile at a time when there was no public transport.[2]

The discovery of gold at Southern Cross and the subsequent declaration of the area as the Yilgarn goldfield in 1888 had prompted the State Government to commence construction of a railway to serve the area. The line, known as the Yilgarn Railway, began at the head of the Eastern Railway at Northam.[3] Before the line had reached Southern Cross however, the Coolgardie, and then Kalgoorlie, gold finds were made, and the railway line was extended, reaching Kalgoorlie in September 1896.[4]

Mine management on the Golden Mile wanted direct access to the railway, as did the town of Boulder. Servicing the mines was considered a lucrative proposition, and a number of proposals were put to the Kalgoorlie Municipal Council for construction of a private line from Kalgoorlie to the Golden Mile. The Government did not want private railway lines constructed so it immediately arranged for the Public Works Department to construct an 'ore tramway' to the mines instead. The tramway was in all effects a railway line, but was called a tramway until the appropriate legislation could be passed for its legal establishment as a railway line.[5]

The Department of Public Works Annual Report for 1896-97 stated that the survey had been completed for the Kalgoorlie-Boulder tramway during the

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1 Webb, M. & A. Golden Destiny: The Centenary History of Kalgoorlie-Boulder and the Eastern Goldfields of WA, (2 vols), Hocking & Co and St George Books, Perth, 1995, p. 91; King, Norma, The Voice of the Goldfields: 100 years of the 'Kalgoorlie Miner', p. 15; Kalgoorlie-Boulder Tourist Centre, Hannan Street, Kalgoorlie 'Our Golden Heritage': a heritage walk along Hannan Street, June 1995, pp. 2-4.

2 Webb, M. & A. op cit, p. 416.

3 The name 'Yilgarn Railway' was replaced with 'Eastern Goldfields Railway' in 1899-1900 (WAGR annual report, 1900, p. 2), and included, at that time, the lines from Northam to Kalgoorlie, the Boulder Railway, and Kalgoorlie to Kanowna and Menzies.

4 Gunzberg, A. & Austin, J. *Rails Through the Bush*, Light Railway Research Society of Australia, Melbourne, 1997, p. 206; Le Page, J. S. H. *Building a State: The story of the Public Works Department of WA, 1829-1985*, Perth, UWA Press, pp. 221-225; Webb, M. & A. op cit, p. 293;

5 Webb, M. & A. op cit, pp. 532-533; Gunzberg, A. & Austin, J. op cit, p. 206.

financial year, and the line of 8 miles (14 km) was expected to be completed and open for traffic about the beginning of November 1897.[6] The tramway opened on 8 November, although not completely finished, and immediately proved popular.[7]

> The number of passengers carried over the Boulder ore tramway is increasing daily, and last week the total number carried was 9,000. The traffic is so heavy that it is probable within a few weeks the line between the Boulder and the Main Reef siding will be finished and the trams run regularly to the Boulder and then on around the mines and back to Kalgoorlie. This round trip would greatly increase the number who could avail themselves of the service especially if stopping places are built on the Great Boulder Perseverance mine, and the crossing over the rails on the Queen West mine near the Eclipse. Already hundreds are availing themselves of the dustless trams to come into Kalgoorlie instead of driving in, and with the contemplated extension of the service there is no doubt the traffic will be quadrupled.[8]

The legislation - the *Kalgoorlie-Gnumballa Lake and Boulder Townsite Loop Railways Act 1897* - was assented to on 23 December.[9] The Act authorised the construction of a railway from Kalgoorlie to Gnumballa Lake (later referred to as Hannan's Lake, and later still as Lakeside), and a loop railway from the line to the Boulder townsite.[10]

In the beginning there were no sidings or platforms on the line for the benefit of passengers, who simply got on or off wherever the train stopped.[11] The first station 'building' at Boulder is claimed to have been a D-wagon, from which the station master ran the station operations, and in which he also slept.[12] The facilities were improved over the next few months, but they were still of an 'economical' nature, as seen by the Department of Public Works' description of the Boulder Railway in its 1898 annual report:

> Commenced originally in 1897 as a tramway, to give facilities to the mines between Kalgoorlie and Hannan's Lake, this line has, owing to the phenomenal development of the Boulder City and the mines in the neighbourhood, expanded into a first-class railway - well, yet economically, equipped throughout.
>
> The line itself consists of a direct line to Hannan's Lake with a loop to Boulder City, and is in all 8 miles.
>
> At various points along the route, wayside stations, with platforms and shelter sheds, have been provided to meet the requirements of passenger traffic. In accordance with the original intention, ie., affording facilities to the rich mines along the route and enabling them to get their machinery, as well as fuel, on to the ground, to allow of cheap transport of rich telluride ores, etc to the seaboard for treatment, branch sidings off the main lines have been made to the following mines, and at the cost of the companies interested, viz - Lake View, Australia, Boulder Perseverance, Ivanhoe, Great Boulder Proprietary, and Golden Horseshoe, also to Hannan's Lake Crushing Company's Battery.

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6 Department of Public Works, annual report to 30 June 1897, in *Votes & Proceedings of the Parliament of WA*, 1897, Paper No. 26, pp. 49 & 54.

7 Western Australian Government Railways, annual report to 30 June 1898, in *Votes & Proceedings of the Parliament of WA*, 1898, Paper No. 41, p. 40.

8 *Coolgardie Miner*, 29 November 1897, p. 4.

9 *Kalgoorlie-Gnumballa Lake and Boulder Townsite Loop Railways Act, 1897*, Statute No. 18, 1897.

10 Map showing layout of the line.

11 Webb, M. & A. op cit, p. 533.

12 ibid.

> The whole of the work was carried out Departmentally.[13]

WAGR took over maintenance of Boulder Railway from the Railway Construction Branch of the PWD on 1 February 1898.[14]

Almost before the first section of the Loopline was completed, there was a need to extend it to cater for the estimated 10,000 people living on the eastern side of the Golden Mile tenements. The *Brown Hill Loop Kalgoorlie-Gnumballa Lake Railway Act,* was assented to on 5 December 1900.[15] This provided for a loop on the opposite side of the line to the Boulder City loop, from Hannan Street station at one end to Kamballie station at the other, passing through Brown Hill, a total distance of about 4 miles (7.25km).[16] Construction of the Brown Hill Loopline was carried out by the PWD, and WAGR took over maintenance of the line on 17 March 1902. There were four stopping places on the Brown Hill loop: Croesus, Hill End and Trafalgar, which were all sidings, and Brown Hill, which was a booking station.[17]

By mid 1900, duplication of the Kalgoorlie-Boulder-Kamballie section of the Loopline was under way to alleviate congestion on the line. As part of the duplication, more substantial station buildings and facilities were planned.[18] The 1901, Government Railways and Tramways annual report listed:

> Works - permanent way, earthworks, fencing, gates, interlocked signals, subways, station buildings and quarters at Hannan Street and Golden Gate, etc... Station buildings and quarters at Kallaroo, Boulder City and Kamballie (not yet commenced).[19]

The tender for Golden Gate station buildings was awarded to Alex Moir in July 1901, with a price of £1,966 1s.[20] The Boulder Subway had also been commenced, but there were problems.

> At Boulder City a subway 30 feet wide, under the full extent of the station yard, estimated to cost £10,800 is provided for, and the approach thereto is complete. The work has been suspended under your [the Government's] instructions. Representations have been made that the subway as proposed will not meet the requirements.[21]

The problems appear to have been quickly dealt with, however, as the Government Railways 1902 annual report states:

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13 Department of Public Works, annual report to 30 June 1898, in V*otes & Proceedings of the Parliament of WA*, 1898, Paper No. 42, p. 59

14 Western Australian Government Railways, annual report to 30 June 1898, in *Votes & Proceedings of the Parliament of WA*, 1898, Paper No. 41, p. 21.

15 *Brown Hill Loop Kalgoorlie-Gnumballa Lake Railway Act, 1900*, Statute No. 41, 1900.

16 Map showing layout of the line.

17 Report on the workings of the Government Railway and the Roebourne-Cossack Tramway, June 1902, in *Votes & Proceedings of the Parliament of WA*, 1902, Paper No. 24 , pp. 47-48.

18 Government Railways and Tramways, annual report to 30 June 1900, in *Votes & Proceedings of the Parliament of WA*, 1900, Paper No. 35 , pp. 2 & 17.

19 Government Railways and Tramways, annual report to June 1901, in *Votes & Proceedings of the Parliament of WA*, 1901, Paper No. 41 , p. 21.

20 *Western Australian Government Gazette*, 12 July 1901, p. 2724.

21 Government Railways and Tramways, annual report to June 1901, in *Votes & Proceedings of the Parliament of WA*, 1901, Paper No. 41 , p. 21.

> Many improvements have been effected on the section Kalgoorlie-Boulder, chiefest amongst them being the Boulder City Subway, Station Buildings etc, at Golden Gate and Hannan St.[22]

Contracts for Kamballie and Boulder railway station buildings were awarded in 1902. Alex Moir won both contracts. The Kamballie contract was awarded in April (£1,878 16 s 4d), and the Boulder contract in September (£3,478 16s 5d).[23] M. Mackesy won the Boulder Station 'overway footbridge and approaches' contract in October, with a price of £1,004 5s 9d.[24] Stock yards were also built in Boulder Railway Station yard in the 1901-02 financial year. The Goods Shed is shown on an early plan of Boulder Station yard, and was probably part of the 1898 improvements made to the Loopline facilities.[25]

All the work was completed by June 1903, as recorded in the Government Railways annual report of that year:

> Improvements - Boulder City - station buildings and station master's house, overhead footbridge connecting 'up' and 'down' platforms, fencing and gates 'up' platform, and new 'up' road [rail track].
> Kamballie - station buildings and station master's house.
> Golden Gate - subway.
> Hannan Street - subway.
> Brown Hill Loop - overhead bridge, Boulder Road crossing on Boulder Railway, overhead bridge for road and tram traffic.[26]

Boulder Railway Station Buildings comprised the main Station Building (or station house; extant), the lamp room, and the latrines building (extant) on the 'up' platform, and a shelter house on the 'down' (island) platform. An overhead footbridge connected the two platforms just north of the main Station Building. Another footbridge south of the platforms provided access over all lines from the western (Boulder) side of the Station Reserve to the eastern (mines) side. The footing remains of the latter footbridge are extant.

At the Burt Street (northern) end of the Station platforms, a road Subway allowed road traffic to pass under the railway line. A Pumping Station kept the Subway dry enough for traffic, and a Pedestrian Subway provided access from Burt Street up to the island platform with a connecting Underpass to the 'up' platform. There was another Underpass connecting the two platforms at the southern end of the station.[27] The Station Master's house (extant) was

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22 Report on the workings of the Government Railway and the Roebourne-Cossack Tramway, June 1902, in *Votes & Proceedings of the Parliament of WA*, 1902, Paper No. 24, pp. 48.

23 *Western Australian Government Gazette*, 11 April 1902, p. 1389 & 26 September 1902, p. 3917.

24 *Western Australian Government Gazette*, October 1902, p. 4108; WAGR, EEL Plan No. 5511, 1902.

25 Site plan of Boulder Station reserve prior to construction of Subway and existing station building, EEL Plan No. 6552.

26 Report on the workings of the Government Railway and the Roebourne-Cossack Tramway, June 1903, in *Votes & Proceedings of the Parliament of WA*, 1903, Paper No. 30, p. 30.

27 Plan of layout of Boulder Railway Station yard, CCE 4476; Eastern Goldfields Railway, Kalgoorlie Boulder Duplication, Boulder Station buildings plans, EEL Plan No. 5511, 1902, Drawings No. 2-6.

constructed north of the Boulder Subway on a corner of the Station Reserve that was later annexed as Lot 3166.[28]

The construction of the Boulder Subway divided the station yard in two. Originally, the Boulder Station yard had consisted of a single large wedge-shaped area on Hamilton Street between Forrest Street, at the southern end, and Wittenoom Street, at the northern end.[29]

The Boulder Subway was designed to allow road traffic, particularly trams, to pass under the railway line. A tramway through the streets of Kalgoorlie and Boulder had been mooted as early as 1897, but the conflicting interests of Kalgoorlie Municipal Council, Kalgoorlie Roads Board, and Boulder Municipal Council, as well as the trade unions, brought delays. The Government was also concerned about a tramway competing with the Boulder Railway line. Nevertheless, Premier John Forrest believed that the difference in speeds and frequency of stops between a steam train and an electric street-car would make them complementary rather than competitive.[30]

The first tramways were laid in Kalgoorlie in 1900, authorised by the *Kalgoorlie Tramways Act* of that year.[31] The first trams ran on the Kalgoorlie lines on 2 May 1902.[32] That year, the route was extended, and then duplicated in 1904.[33] The Boulder Municipal Council was slower in getting a tramway system in Boulder, hoping to encourage residents to patronise local commercial ventures rather than shop in Kalgoorlie. However, the fact that residents already had access to the Loopline to travel to Kalgoorlie made the argument redundant.

The tramways were laid along Lane Street and through the Boulder Subway in 1903 and, in January 1904, the *Boulder Tramways Act* was passed.[34] Even before the tramway was running in Boulder, railway revenue was being effected by the competition, as reported in the Government Railways 1903 Annual Report.

> During the year the competition with the Kalgoorlie Electric Tramway Co for the Boulder line traffic was keen, and caused shrinkage in our receipts for this line. Reduced fares and improved service gave satisfactory results, but only temporary. As soon as the electric trams run right into Boulder City our service will hardly pay.[35]

The Railways department was correct in its forecast. From 1904, the Loopline began to lose money and services were curtailed, although it was claimed that the trains still ran every half hour, day and night.[36] Trams ran along the main

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28 Boulder City Station plan, EEL Plan No. 6957, 7 July 1909; Certificate of Title Vol. 3034 Fol. 798, 23 June 1993.

29 Site plan of Boulder Station reserve prior to construction of Subway and existing station building, EEL Plan No. 6552.

30 Webb, M. & A. op cit, p. 538.

31 *Kalgoorlie Tramways Act, 1900*, 5 December 1900, Statue No. 43, 1900.

32 *Goldfields Magazine*, 13 May 1993, p. 3.

33 *Kalgoorlie Tramways Act, Amendment Act 1902*, Statute No. 10, 1902, and *Amendment Act 1904*, Statute No. 5, 1904.

34 *Boulder Tramways Act, 1904*, Statute No. 2, 1904.

35 Report on the workings of the Government Railway and the Roebourne-Cossack Tramway, June 1903, in *Votes & Proceedings of the Parliament of WA*, 1903, Paper No. 30, p. 18.

36 Webb, M. & A. op cit, p. 538; Morris, John, *Boulder: City of the Dreamtime*, Artlook Books, 1984, p. 29-30.

streets of both Kalgoorlie and Boulder, and through the Subway to the mines and the Boulder Block, which had developed as a commercial and recreational area in the heart of the mining tenements.

While the Loopline may not have been profitable for the Government Railways, it was still a busy railway system. One of the requirements for operating the mines was timber, and from as early as 1898, timber companies, such as Millar Bros, leased land in the Boulder Station yard and constructed their own sidings. Timber for fuel was needed to generate electricity for lighting and power, to run the electric trams, to power the steam driven winders that hauled ore to the surface and to heat the furnaces in which the gold ore was roasted. Structural timber was also required for the shafts and passageways of the underground mines. Before the advent of the Goldfields Pipeline, water was condensed for drinking and for use in the steam train boilers, again requiring large supplies of timber. After the Goldfileds Pipeline was completed between Mundaring and Kalgoorlie, timber was needed to fuel the eight steam-powered pumping stations along the pipeline route.[37]

After 1919, a number of companies involved in wood collecting operations concentrated on the area south of Lakeside, and Kamballie was the main depot where the wood wagons were left for distribution by WAGR to the mines and other users on the Loopline. The wood companies built 'woodlines' (railway tracks into the bush), moving them to a new area when the current area was cut out. Wood was cut in the area until about 1964, when diesel power began to take over.[38] A 1952 map shows sidings from Boulder Station to the wood stacks at the Kalgoorlie Power Corporation site at the end of Hamilton Street.[39]

As well as transporting timber, and goods and machinery to the mines, and ore to Fremantle, the trains on the Loopline were used by the miners. The changing of the shifts saw thousands of men transported back and forth within a short space of time, with trains passing through Boulder Railway Station every few minutes at change of shift. Sixty trains, each up to ten carriages in length, provided the service.[40] Children travelling to Sunday School picnics at Lakeside were carried on a special train which ran around the Loopline collecting passengers on the way. Another benefit of the Loopline was felt by courting couples, who could catch the 8.30pm train at Boulder Railway Station, travel the Loop in comfort and in the dim light of the oil lamps, and be home by 10pm.[41]

Passenger services on the Brown Hill Loop were discontinued in 1931, after all the houses in the area had either been dismantled or abandoned due to the Depression. The section closed completely in 1937. This left the Boulder City Loop and the mines line still operating. In 1952, the trams were replaced by buses, and by 1954, the rail service on the remaining Loopline was reduced to two passenger trains a day to Boulder and a goods train to Kamballie.[42]

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37 Gunzberg, A. & Austin, J. op cit, p. 163.

38 Gunzberg, A. & Austin, J. op cit, Chapter 9, 'The Kalgoorlie Woodlines'.

39 WAGR, Kalgoorlie Power Corporation sidings, Plan No. 41148, 1952.

40 Uhe, Phillipa, *Survey of railway Heritage in Western Australia,* National Trust, March 1994, Section 4, n.p.

41 Morris, John, *Boulder: City of the Dreamtime,* Artlook Books, 1984, p. 29-30.

42 Uhe, Phillipa, op cit.

The Boulder Railway Station reserve underwent numerous changes over the years. The Station buildings were set back from Hamilton Street with an expanse of ground in between. Part of this ground was developed as an attractive park by the Boulder Municipal Council, which leased the land from WAGR.[43] A circular park area, immediately in front (west) of the main Station Building, was planted with shrubs and fenced, and a rotunda was erected.[44] A Memorial to those who served during World War One was installed in the Park on 25 July 1920.[45] The Memorial was commissioned by David Donaldson, licensee of the Metropole Hotel, Boulder, whose son had been killed in action. The Memorial was unveiled by Major-General Sir Talbot Hobbs in front of a gathering that included the Mayor of Boulder, Mr J A Rogers, Mrs Rogers, Councillors and their partners, the Mayor of Kalgoorie, Mr B Leslie, Mr H Colebatch MLA, Archbishop Riley, RSL State Secretary, Mr A L Knowles, and the President and Secretary of both the Kalgoorlie and Boulder RSL groups.

> The monument donated by Mr David Donaldson and erected in the Railway Reserve, Boulder, in honour of goldfields soldiers who participated in the great war was unveiled yesterday in the presence of a large gathering...Mounted on a granite pedestal 13 feet in height, the bronze statue presented an imposing sight...The inscription read: 'Lest We Forget'. This monument is erected in gratitude of the goldfields heroes who participated in the great war 1914-1919, and in ever loving memory of those who died for Australia and the Empire. Their bodies are buried in peace, but their name liveth forever more.'[46]

As part of the ceremony, Major-General Sir Talbot Hobbs presented 1914-15 medals to the ten returned soldiers.

The Boulder Station Park Memorial, and another World War One memorial (1923), which is situated facing the Kalgoorlie Railway Station, were created by sculptor Pietro (Peter) Porcelli. Both memorials were privately commissioned and are claimed to have been posed for by the same returned soldier.[47] The Boulder Station Park Memorial was commissioned by Donaldson in 1916. The bronze figure, which was cast in Italy, depicts an Australian soldier, 'bare-headed and in defiant attitude, his rifle gripped in fearless style'. The pedestal is of Mahogany Creek granite, and the total height of the Memorial is over six metres.[48]

Porcelli was responsible for over a dozen war memorials in the years after World War One, including the Sir J J Talbot Hobbs Memorial on Riverside Drive, Perth, as well as many other works. These included the bust of Sir John Forrest, the statue of C Y O'Connor, an effigy of Bishop Kelly of Geraldton, the Lord Forrest Mausoleum, and headstones in the Perth and Fremantle cemeteries.[49]

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43 Boulder City Station plan, EEL Plan No. 6957, 7 July 1909; *West Australian Government Gazette*, 10 October 1947, p. 1907; photograph, c. 1910, Battye Postcard collection, 5168B / 72.

44 According to the Kalgoorlie-Boulder Municipal Inventory 1998, 'Park and Rotunda, Hamilton Street', the rotunda was moved to the park from another location.

45 Photograph supplied by the City of Kalgoorlie-Boulder.

46 Kalgoorlie Miner, 26 July 1920, p. 3.

47 Rip Hayhow, President of the Kalgoorlie-Boulder RSL, telephone conversation with Irene Sauman, see Memo HCWA File 4639.

48 Keane, S B, 'Pietro G Porcelli: Sculptor, 1872-1943', in Early Days, Vol. 8, No. 5, pp. 9-28.

49 ibid.

In 1939, the Municipal Council surrendered part of its park land for the purpose of an electric light station, and a new power station was built on the site, gazetted Lot 2711.[50] The land along the edge of the Station Reserve fronting Hamilton Street, between Burt and Wittenoom streets, was subdivided and released for sale for residential purposes. The Station Master's House and land was included in this subdivision, and was sold on 31 January 1968.[51]

West Australian Government Railways had always had the problem of running a narrow gauge rail system while the rest of the rail link with the eastern states was standard gauge. The two systems met at Parkeston, 4 kms east of Kalgoorlie, where everything had to be manually transferred from one system to the other. In 1966, the standard gauge line was finally extended to Fremantle, and the narrow gauge system was phased out. The Loopline Railway was narrow gauge.

Although emphasis was shifting to road transport, considered to be more efficient than the railway as it reduced handling time and costs, Westrail did not cease operation of the Loopline until 1976. The Loopline Preservation Group was formed to retain the line and the remaining stations, and the Golden Mile Loopline Railway Society arranged to lease the line from Westrail to run as a tourist operation. The Kalgoorlie-Boulder Historical Society occupied part of the Boulder Railway Station House as a display centre.

In the late 1980s, new mining technology resulted in the development of the Super Pit open-cut mining operation. Since 1989, the Super-Pit operation has spread to the extent where very little remains of the Loopline. The original lease of the Loopline extended from Golden Gate to Trafalgar station, the next station on the line past Kamballie, but the operable section of line has since been reduced to that between Golden Gate and Kamballie.[52]

In 1996, the Historical Society moved out of the Boulder Railway Station and into the old power station nearby. In April that year, Westrail commissioned a structural investigation of the Boulder Subway, with a view to extending the operating life of the two tracks operated by the Loopline Railway Society.[53]

The Boulder Station Park is the site of the annual Anzac Day ceremony conducted by the Boulder RSL. The RSL is responsible for the Memorial, with maintenance work being carried on their behalf by the City of Kalgoorlie-Boulder.[54]

In 1999, the Golden Mile Loopline Railway Society, the Kalgoorlie-Boulder City Council and Kalgoorlie Consolidated Gold Mines Pty Ltd began working on a 'Loopline Heritage Restoration Project Plan'. The plan is considered imperative to the Loopline remaining a viable operation and to improve the facilities it provides as a tourist attraction in Kalgoorlie-Boulder. The central

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50 *West Australian Government Gazette*, 24 February 1939, p. 331.

51 Plan book, Boulder City progress plan, 1935-1968, File 1952/34, Fol. 76. Area along Hamilton street released for sale by Land Dept. CCE Plan 29501, File 1952/34, Fol. 76.

52 Westrail/Golden Mile Loopline Railway Society lease, 1982.

53 'Westrail Kalgoorlie Boulder Subway: Structural investigation - supplementary report', prepared for Westrail, Kalgoorlie, by BSD Consultants Pty Ltd, Subiaco, April 1996.

54 Rip Hayhow, op. cit.

focus of the plan aims to recreate an important original aspect of the Loopline; ie. a rail connection between Boulder Station and Hannan Street.[55]

The Golden Mile Loopline Railway Society and Kalgoorlie Consolidated Gold Mines signed the agreement for the Loopline Heritage Restoration Project on 30 March 2000.[56] Kalgoorlie Consolidated Gold Mines are funding the $1.5 million project in return for the removal of a section of the line that traverses part of a planned open cut mining area. The funding will go towards a loopline trust, restoration works to Boulder Subway and Station and future construction programs.[57]

In 2000, the Boulder Station Buildings are occupied solely by the Golden Mile Loopline Railway Society, from which they run their tourist operation. The Society has recently constructed a shed for the use of restoring railway rolling stock. Their current lease on the Loopline buildings and line runs until 2003.

13. 2 PHYSICAL EVIDENCE

Boulder Railway Station, Subway and Loopline (1897-1903), consists of the remains of a turn of the century, narrow gauge railway complex, comprising: a section of the Loopline Railway Line (1897 & 1902); Boulder Station Goods Shed (1898); Boulder Station Buildings, Platforms and Pedestrian Subway (1903); Boulder Subway and Pumping Station (1903); and Boulder Station Park, Rotunda and Memorial (c.1903; 1920), and the footing remains of the larger of the two pedestrian overbridges which were built at Boulder Station.

Boulder Railway Station, Subway and Loopline is located within a railway reserve which traverses a section of the Kalgoorlie-Boulder goldfields. The remainder of the Loopline runs between Forrest Street and Wittenoom Street, through Kamballie and Golden Gate railway stations. Some rail tracks exist beyond each of those stations.

Boulder Railway Station Building and the adjacent toilet building are on the main platform. Approximately 100 yards south east of the platform, the concrete footing remains of the pedestrian overpass are still evident. Opposite the Railway Station the stone walls of the island platform are evident. North of the Station Building, the original Goods Shed remains insitu. At the northern end of the Boulder Railway Station is the Subway construction taking Burt Street under the railway line. South of the Boulder Railway Station, the Loopline Railway sweeps around in a north-easterly direction towards the next station on the line, which is Kamballie. At Kamballie Station the 200 metre long island platform is still intact and a station building still remains. North of Boulder Railway Station, the Loopline sweeps around to the east and the next station is Golden Gate. At Golden Gate Station, the remains of the brick Pedestrian Underpass are still in place in the centre of the 200 metre island platform.

Boulder Railway Station Park and Rotunda

The approach to the Boulder Railway Station is off Hamilton Street, Boulder, at the end of Piesse Street. The sweeping semicircular drive surrounds a central grassed area with parkland plantings and a retaining wall banking up

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55 Presentation to Development Committee on 22 February 2000 - HCWA File P 4639.

56 *The Kalgoorlie Miner*, 31 March 2000, p. 3.

57 Ibid.

to the station at the east. Within the picturesque setting is a rotunda structure. The eight-sided open structure is raised on a concrete plinth. Cast iron columns support the faceted bull nosed roof. The columns have decorative cast iron brackets and a fringe. The underside of the roof is lined with match board in eight facets. A World War One memorial, comprising a stone plinth and bronze statue with two flag poles, is also located within the reserve. The statue and flagpoles are enclosed within a decorative iron fence painted green.

Boulder Railway Station buildings and platforms

The Boulder Railway Station is the point of the departure of the Loopline Tourist Railway. The railway tracks are operational between Kamballie and Golden Gate and the train traverses the route daily.

The Boulder Railway Station Building is a single story brick structure with a hipped corrugated iron roof with gable features and a break pitch verandah along the platform. The building is entered from the south end, which is the first point of arrival on the one way circular approach road. At the entry gate, the toilet building is on the right, and the Station Building on the left. On the front of the Station Building, the roof overhang is strutted from corbelled brickwork. Around the east side of the Station Building, the bitumen platform stretches northwards. The original verandah posts with four strut structure are in place at regular intervals along the platform.

The Station Building is constructed of Coolgardie face brick in an English bond. Three course header arches are in place above the window and door openings. The double hung sash windows have rendered sills, and the public windows have bars shaped into an arch, reflecting the arch over the entrance door. The four panelled external doors have fanlights above. The interior of the station building is a series of rooms with most having access to the platform. The rooms all interconnect, some of them having new openings to facilitate the connections. The original 0.135m floor boards, the architraves, skirtings and some ceilings are still in place. Several rooms in the building have been refurbished with gyprock ceilings. The original main entry is at the north end of the building. The building is in fair to good condition, although the stumps and floor in the south west corner have subsided, and there is evidence of termite activity. The Boulder Railway Station building has retained a moderate to high degree of integrity and authenticity.

The toilet building is at the south end of the Station platform. It is a brick and iron construction, and has concrete floors throughout. The roof is gabled with horizontal board infills above the brick walls, which are laid in English bond.

The entries into each of the mens' and ladies' toilets are open arched doorways, although the arches have been bricked in. The internal toilet facilities have up to date fittings and fixtures. Brick privacy walls have been constructed around each door opening. The building evidences change in the external fabric, showing an infilled door opening. The condition of the building is good, and it continues to function as originally intended, so it has retained a high degree of integrity. It has a moderate degree of authenticity.

Further south, beyond the end of the platform, are the remnants of the concrete footings of the passenger over bridge.

The island platform of the Boulder Railway Station complex is still evident along its entire length. There are no buildings remaining on the island

platform, and no obvious remnants of any buildings. Both the Railway Station platform and the island platform are stone construction with a concrete edge. The island platform is in poor condition, the bitumen is no longer in place. On the east side of the platform, there are recently constructed steel framed and clad sheds which do not form part of this assessment although they are within the railway reserve.

Boulder Railway Station Goods Shed

Across the railway lines, to the north east of the Railway Station, is the original 1898 Goods Shed. It is a timber framed corrugated iron clad structure with a skillion roof sloping towards the rail line. On the east, high side, a series of louvred vents are in place in the wall. The Goods Shed was inaccessible during the site investigation.

Boulder Subway, Pedestrian Subway and Pumping Station

Less than a few hundred metres north of the Boulder Railway Station, at the end of the platform, is the Boulder Subway. It is a complex structure with a brick Pedestrian Subway parallel with the railway lines, a road Subway in Burt Street, at right angles to the railway line, and seven railway lines over the top, of which only three are still operational. A vehicle crash rail has been installed adjacent to the footpath through the subway.

The central Pedestrian Subway slopes down from the original island platform. It is a ramped open tunnel down to the Burt Street road level. The entire construction is a substantial series of brick gravity mass retaining walls laid in English bond. The Boulder Subway walls are also constructed in brick. There are fretting bricks in evidence, particularly on the north west facing wall, and efflorescence, on the north east wall of the Subway.

The railway support is a riveted steel bridge. It is a series of steel plate girders with the rail and ballast supported by steel troughing on the plate girders. The deck is in two sections, one each side of the Pedestrian Subway access. The eastern section of the deck, approximately 15 metres long, originally carried a road. It is supported by rolled steel longitudinal girders. The west end which carried the railway is fabricated riveted plate girders with lighter steel, semi-circular troughing.

Girders and rivets are in an advanced state of corrosion and the residual strength cannot be properly assessed without dismantling the bridge decks.[58]

Under the Subway, there is still evidence of the original tram connections fixed under the steel girders. Venting elements are also still in place in the brick walls.

The brick pump house is still in situ on the east side of the Subway.

The railway track is laid with rails of a size and shape especially provided for the WAGR (58lbs / yd WAR) and is in reasonable condition. This rail type has been obsolete for many years.[59] The railway also features a number of timber box culverts in reasonable condition. [60]

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58 Engineering report by BSD Consultants Pty Ltd dated 18 November 1999 – HCWA File P 4639.

59 Bruce James, Chairman, Heritage Panel, Institution of Engineers of Australia, correspondence to HCWA dated 24 November 1999 – HCWA File P 4639. This rail was also used to construct the Kalgoorlie-Leonora Railway and a slightly modified rail was adopted as a WAGR

13. 3 COMPARATIVE INFORMATION

Boulder Railway Station, Subway and Loopline continues to function as a small railway system, and the remaining elements of the place are in largely original condition.

Boulder Railway Station is the only remaining station on the Loopline. The buildings at Hannan Street, Golden Gate and Kamballie stations (except for one small building at Kamballie in poor condition) have been removed. The line is no longer operable between Golden Gate and Hannan Street, or east of Kamballie. Brown Hill station was closed in 1937, and all the other stops on the Loopline were sidings.

The construction of the Boulder Subway is typical of WAGR subway construction of the time, but its length of approximately 75 metres makes it one of the longest, if not the longest, in the State.

The rivet construction, gravity brick abutments and retaining walls of the Subway represent a nineteenth and early twentieth century form of construction that is now obsolete. Other examples are in the Perth metropolitan area, but these are gradually being replaced to meet the changing requirements of town planning and railway axle roads. For example, the Hay Street subway in Subiaco has recently been removed. The Subway is also unique in the use of brick faced parapeted beams and semi-circular floor troughing, rather than the usual trapesoidal shape.[61]

Very few goldfields railway systems remain. The Marble Bar and the Mullewa to Mt Magnet lines are not extant, although the Yalgoo Railway Station Group (1898) on the latter system remains as part of a community and sports complex. The stone buildings on the Leonora railway line are not extant. The Kalgoorlie Railway Station Group remains as a functioning system which has been adapted to current requirements.

Other railway station groups are located in the South West. Merredin Railway Station Group (1897+), is part of a museum and is not an operating railway. The railway buildings in this group are well maintained. Pinjarra Railway Yards (1893+) are part of the operating Hotham Valley Tourist Railway.[62]

13. 4 REFERENCES

'The Heritage Council of Western Australia Heritage Assessment: Boulder Subway, Boulder Station Boulder, Golden Mile Loopline Railway', G. B. Hill & Partners Pty Ltd, West Perth, October 1993.

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standard for use in many part s of the system, including the Northam to Kalgoorlie Railway and the Norseman to Espereance section of the Esperance railway.

60 Ibid. These were a WAGR standard in common use but have been fully replaced on operating railway lines.

61 Ibid.

62 Yalgoo Railway Station Group (P2778), Merredin Railway Station Group (P1577/2641) and Pinjarra Railway Yards (P3097) are included in the Register of Heritage Places.

For further information regarding Boulder Subway, see 'Westrail Kalgoorlie Boulder Subway: Structural investigation - supplementary report', prepared for Westrail, Kalgoorlie, by BSD Consultants Pty Ltd, Subiaco, April 1996.

13. 5 FURTHER RESEARCH
