RAILS TO THE BARRIER

Broken Hill as seen from the top of the line of Lode. The 1957 station is in the right foreground. Image: Gary Hughes

ESSAYS TO COMMEMORATE THE CENTENARY OF THE NSW RAILWAY SERVING BROKEN HILL.

Australian Railway Historical Society NSW Division. July 2019.

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INTRODUCTION

Welcome to Broken Hill. On behalf of the ARHSnsw Division and the Railway Luncheon Club I also welcome you to our tour which marks 100 years since the first NSW railway came to The Silver City.

Almost everyone knows that Broken Hill is a famous mining town a long way from anywhere[1], but Broken Hill is no ordinary mining town. It lies on the inland edge of the western plains of NSW, 1125 km by rail from Sydney. It is located in a strange and dry (annual rainfall average 253mm) strip west of the Darling River which has produced successful pioneers, beef and wool from apparent desolation and the greatest silver, lead, and zinc mines in the world. Broken Hill is the birthplace of the world's largest mining company, the cradle of some of the country's greatest industrialists[2], and its wealth has contributed much to Australia's industrial growth.

From its humble beginnings with the first discoveries of its silver ores in 1883, it grew spectacularly to reach its pinnacle in the mid 1900's, and then slowly declined. Currently (2019) two mining companies are extracting about 2 million tons of ore per year with about 500 miners, using modern mining methods. A far cry from the early days when over 8000 miners extracted a similar amount, much of it by physical labour. And whilst mining continues, Broken Hill's main focus has now turned to other pursuits, particularly tourism. Broken Hill is a place which has seen absolute boom times, economic depression, water famine, dust storms, floods, industrial chaos, world class technical innovation, and, more recently, tourism and the film industry. And along the way it remains as the longest continuously lived-in mining community in Australia's history, and it continues as a regional centre.

In 1920, whilst addressing a deputation of Broken Hill mine managers, the then NSW Premier John Storey described Broken Hill as "being on the edge of sundown and nobody seems to care what you do out there". Such comments from the Premier of the day only tended to reinforce the opinions long held in Broken Hill that despite the huge royalties being paid by the mines to the NSW Government, the Government didn't care much for Broken Hill and its basic needs such as water and transport. At 1125 km from Sydney, Broken Hill was just too far away. Little wonder then that Broken Hill tended to turn to South Australia, its border only 50 km west of Broken Hill, and its capital Adelaide only a further 450 km.

It is against this sort of background that ARHSnsw Life Member Stuart Sharp has researched and written the essays in this compendium, to mark the centenary of the NSW railway serving Broken Hill. In this task he has received input and assistance from Paul Horder, Gary Hughes, Dr Bob Taaffe, Graham Harper, Frank Johnson & John Watsford. I take responsibility for this Introduction and the following material about Broken Hill itself.

These essays tell the story of the NSW Railways' connection to Broken Hill from the perspective of the political and social influences of the day, rather than a history of the railway construction. For the latter the reader is referred to the collection of articles by CC Singleton in the ARHS The Bulletin from

[1] Opening sentence in *The Richest Lode*, historian R.J. Solomon's 1988 comprehensive history of Broken Hill

[2] BHP alone produced Guillame Delprat, Essington Lewis and Leslie Bradford, and from other mines came Sir Maurice Mawby and Sir George Fisher, to name just a few.

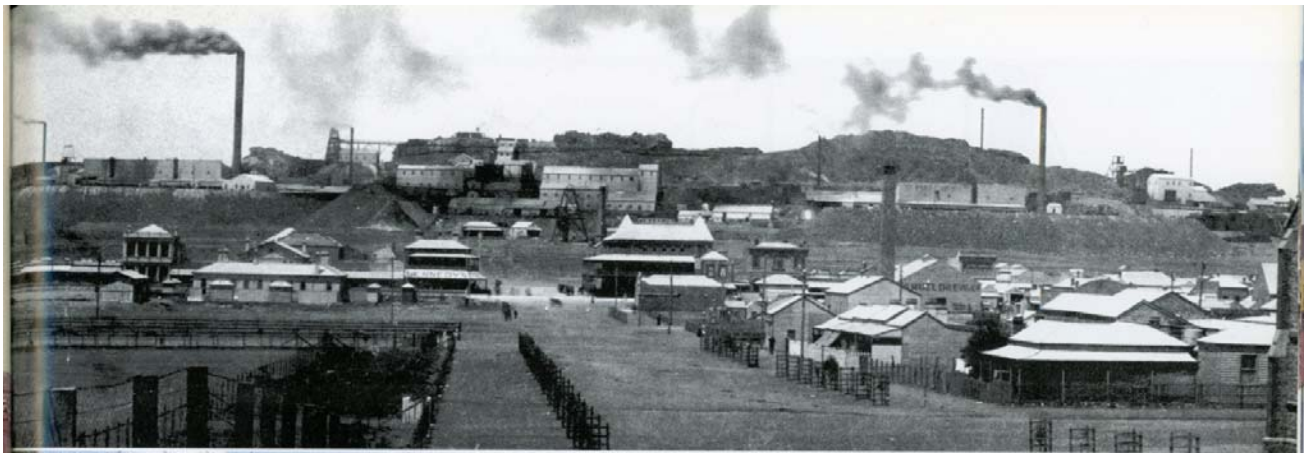
April to July 1962, and by J Harvey in The Bulletin in September 2003. Greg Blackwell has covered the history of the water trains between Menindee and Broken Hill, and also some of the history of the railway between those two points, in Australian Railway History (successor to The Bulletin) in August 2011. These publications and also a significant collection of material, including books, on Broken Hill are available in the ARHSnsw Rail Resource Centre.

A bibliography is at the end of this compendium.

Gary Hughes

April 2019.

THE HISTORY OF BROKEN HILL



Broken Hill as it appeared c.1888. The "broken hill" is apparent in the background. (Broken Hill City Library)

EARLY EXPLORATION AND SETTLEMENT

The explorer Charles Sturt trekked through this area in 1844 - 1845, and he is credited with sighting and naming the Barrier Ranges. Whilst versions vary, he is also credited with noting a rugged feature at the southern end of these ranges that he referred to as a "broken hill", but he did not name it. Within a few years of Sturt's exploration, settlers moved into the area taking up large areas of land. Two notable properties were Kinchega and Mt Gipps, their dividing boundary almost splitting the site of the future Broken Hill city. George McCulloch became manager of the Mt Gipps Sheep Station[3] in 1875, and he was later to play a prominent role in the development of mining in Broken Hill.

By 1858 prospectors were in the Barrier Ranges but found little of value. Then in 1876, Julius Charles Nickel and his mate McLean discovered silver ore whilst dam sinking at Thackaringa, about 10km east of the South Australian border, and this was the first recorded discovery of silver bearing ore in the Barrier Ranges region. John Stokie pegged out the nearby Umberumberka claim in 1881 and this, and other discoveries in the region, gave birth to the town of Silverton. Broken Hill however took a little bit longer to reveal its riches.

THE BROKEN HILL MINERAL DISCOVERY

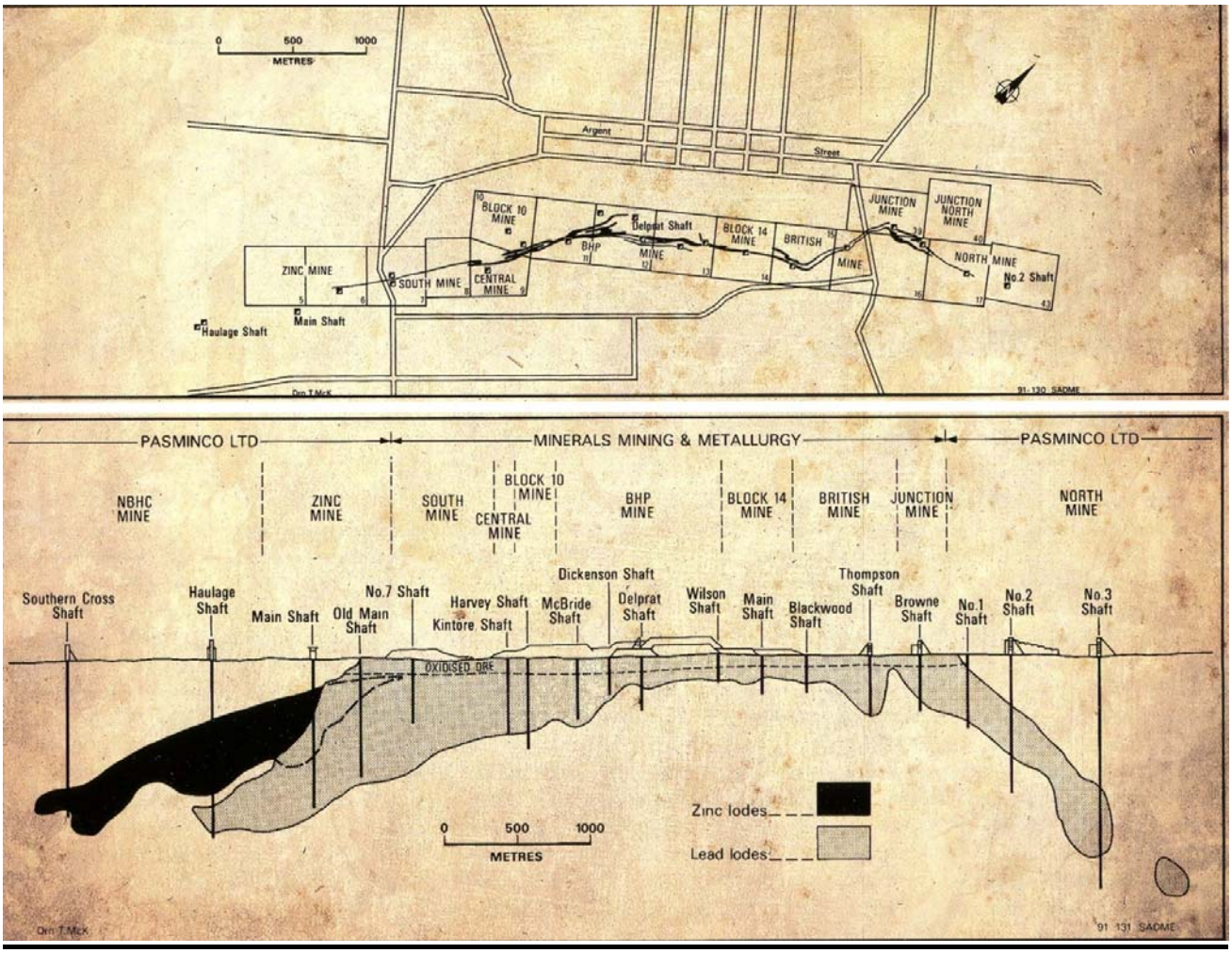
As mentioned above, the earliest discoveries made in the region were at Thackaringa, about 40 km west of Broken Hill in 1876 and at Umberumberka (near Silverton) in 1881. Silverton became a large town of over 3000 people by 1883, but its ores were only in small pockets and by 1900 it was a ghost town. Broken Hill emerged from 1883 and by 1890 it had overtaken Silverton.

A German named Charles Rasp[4] had migrated to Australia for health reasons in 1869, and was

[3] Not to be confused with Mt Gipps railway station, which was opened some 20km away in 1919.

[4] Recent research has cast doubt on his recorded past and whether his real name was in fact Rasp.

employed as a boundary rider at the Mt Gipps Station[5], about 16km east of Broken Hill. He had some knowledge of minerals and was curious about the jagged ridge known locally as "the broken hill", which rose conspicuously above the surrounding terrain. On 5th September 1883 he climbed the hill and collected rock samples which he thought to be oxides of tin, but on assay they were found to contain silver and lead. What he had discovered turned out to be the richest deposit of silver, lead and zinc the world has so far known. Rasp and McCulloch, the manager of Mt Gipps, together with fellow employees at Mt Gipps, formed the "syndicate of seven" to mine this deposit. On 10th August 1885, this syndicate was registered as The Broken Hill Proprietary Co. Ltd or BHP as we know it today[6]. Whilst there has been some suggestion that it was not Rasp who first found the Broken Hill ore, but one of his colleagues, it was certainly Rasp who first had the determination to explore the "broken hill", against local opinion which considered it to be a "hill of mullock", and he should be given the credit for its discovery.



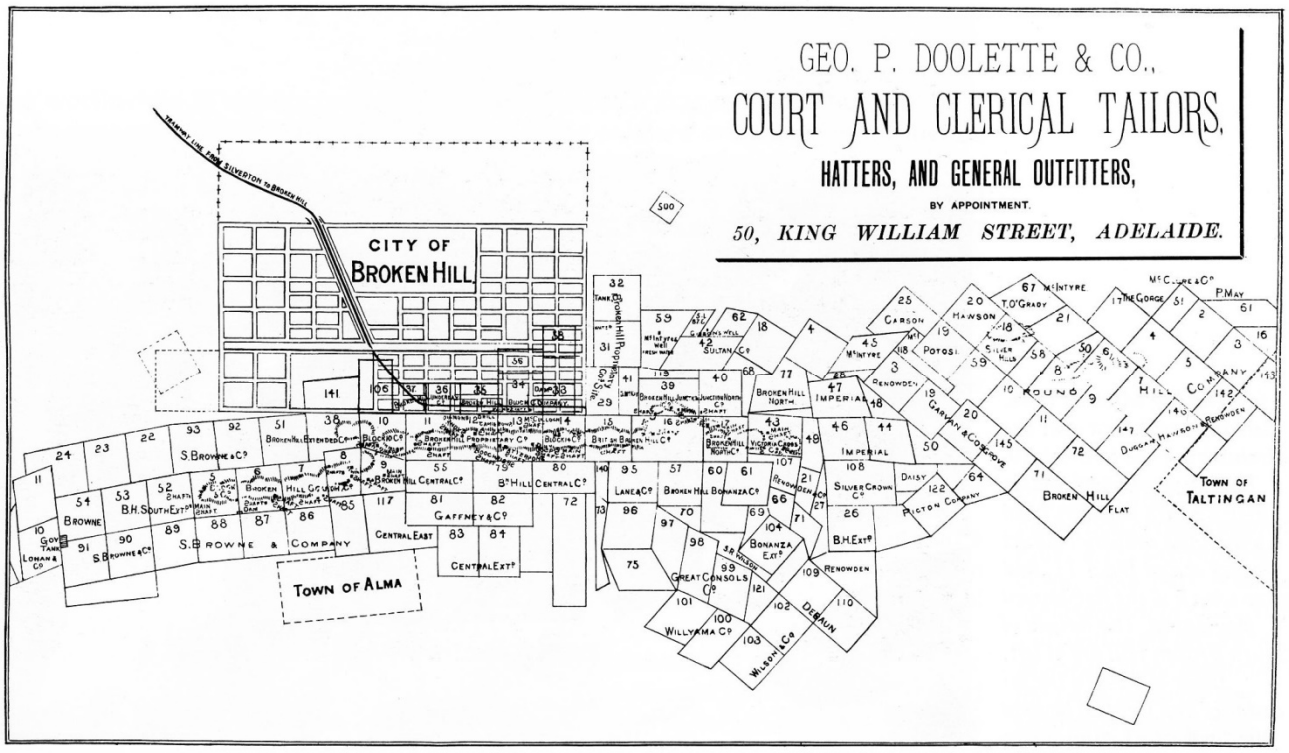
The Broken Hill ore body, showing the principal mining leases and major mining companies. Note that Pasminco went broke in 2001 and was acquired by Perilya. The activities of Minerals Mining and Metallurgy ceased in 1991.
(Broken Hill – A Guide to the Silver City.)

THE MINES

[5] The original holding of about 1 million acres has since been subdivided, but ruins of some of its old buildings still exist.
[6] Now BHP Billiton Ltd

The history of mining and the individual mining companies falls outside the scope of these essays, however as the mines were the reason for Broken Hill's existence, it is appropriate to cover some of the history of the major mines.

Whilst the discovery of silver and lead bearing ores was made in 1883, it took several years for the deposits to be proven and for serious mining to get under way. BHP was the major miner in the early days and its leases covered about 300 acres of the hill. Whilst the presence of other minerals, including zinc, was also discovered, it was silver and lead which were the most marketable. By 1886 mining by BHP was well under way and other companies were formed to acquire leases and try their luck. By 1890 there were over 120 mining leases in the region, extending well beyond what was to become the City of Broken Hill.



Plan of the mining leases as they appeared in c.1889. The main mining activity was from about the centre to the left hand side of the diagram. (from *The Richest Lode*, page 65)

There are currently two mining companies operating in Broken Hill. Perilya Limited acquired the mining operations of Pasminco, but not the Cockle Creek Smelter, in 2002. Their activities currently cover the former New Broken Hill Consolidated mine, and the Potosi deposit some 8km east of Broken Hill. Perilya is also reopening part of the former North Mine. Perilya ore is mostly processed at the Port Pirie smelter.

CBH Resources Ltd is operating a mine deep below the centre part of the lode, gaining access via a decline in the bottom of the former Kintore Open Cut of the Central Mine. The mine is called Rasp Mine, thus remembering the discoverer of the Broken Hill lode. The ore from CBH is sent to China via the Port of Newcastle for processing.

At this stage, mining in Broken Hill is set to continue for at least another 10 years, but it does depend on the quality of the ore being mined and the metal prices.

BROKEN HILL'S MAJOR MINES

Mine	Opened	Closed	Location	Notes

BHP Mine	1883	1939	Blocks 11, 12, 13	BHP was the sole owner
British BHP Mine	1887	1991	Blocks 15, 16	BHP was a major shareholder
BHP Block 14 Mine	1887	1991	Block 14	"
BHP Block 10 Mine	1888	1991	Block 10	"
Central Mine[7]	1887	1959	Block 9	Acquired by South Mine 1941
South Mine	1885	1972	Blocks 7, 8	
Minerals Mining and Metallurgy Mine	1972	1991	Blocks 7 – 16 inclusive	Acquired all of these older leases and reworked them.
North Mine	1883	1993	Blocks 17 and 43	Merged with Zinc Corp 1988 to form Pasminco
Junction Mine	1884	1972	Block 39	
Zinc Corp Mine	1910	1996	Blocks 5 and 6	Merged with 1988 North Mine to form Pasminco
New Broken Hill Consolidated (NBHC)	1944	Currently operating	CML 8	Started by Zinc Corp. Now part of Perilya
Pasminco	1988	2000	Zinc Corp, NBHC & North Mine	Now owned and operated by Perilya
Perilya	2001	Current operating	CML's 4, 5, 8	Acquired Pasminco's operations.
CBH Resources	2012	Currently operating	CML 7	Occupies part of original BHP leases.

RAILS TO THE MINES TODAY

Whilst from 1888, rail services to the mines were the domain of the Silverton Tramway, today it's very different. The two current mines, Perilya and CBH Resources, are connected to the standard gauge rail system. Perilya has rail access via a siding at the western end of Broken Hill yard, its ore loaded into covered wagons and going mostly to Port Pirie. CBH is served by a siding at the eastern end of Broken Hill yard where its ore is loaded into containers and taken to Carrington (Newcastle) for shipment to China. There is still a rail connection to the North Mine, and even though there is a rake of wagons on it close to the North mine, it has not seen use for some years.

The track through Broken Hill is under the control of the ARTC, with control from Adelaide to Broken Hill yard, with the line from Broken Hill yard to Goobang Junction (near Parkes) and through to Junee via Forbes, being controlled from Junee.

And despite its legendary status, (W) 44, the "ore train" to Cockle Creek hasn't run for many years.

[7] The Central Mine was owned by The Sulphide Corporation who also built and operated a smelter at Cockle Creek near Newcastle, NSW. This smelter was later acquired by Pasminco and finally closed in 2003. It was never operated by Perilya.

THE PLACE NAMES

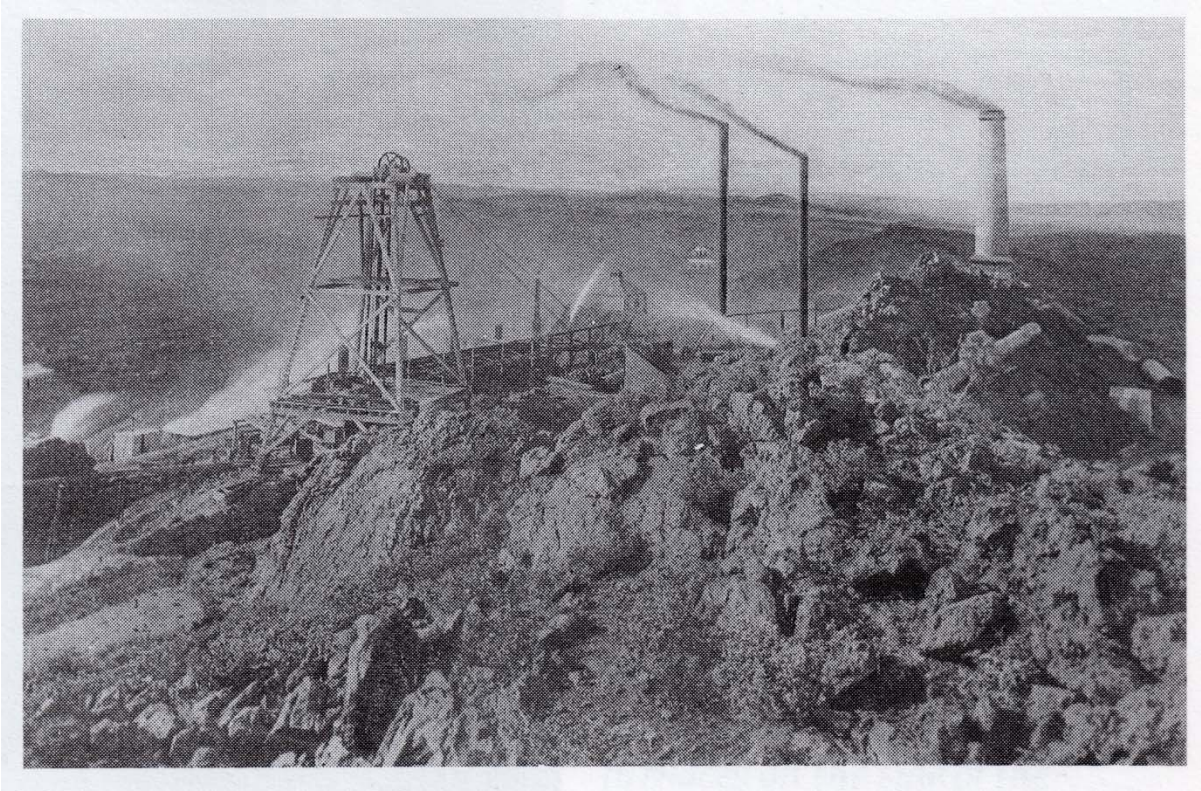
Our tour will take us to a number of towns and communities, so for convenience the list below describes the origin of the names of some of these places. They are listed alphabetically.

Broken Hill

Broken Hill takes its name from the ragged hill, as noted by Sturt, at the southern end of the Barrier Ranges. As mining commenced and the settlement grew it just became Broken Hill, but I have been unable to find any record of it ever having been formally named as such. There was an attempt to rename it Willyama, a name which had indigenous origins, but it didn't meet with local approval.

As mining expanded, so did the population. In 1886 it was 3000, in 1888, the year Broken Hill became a municipality and when 40 hotels were licensed, the population was about 15000. It was 30700 in 1907 when it was proclaimed a city, and peaked at 35000 in 1915, by which time it was the third largest city in NSW, after Sydney and Newcastle[8], and retained this rank well into the 1930s.

One other feature about Broken Hill, which is synonymous with mining towns, is its pubs and Broken Hill is no exception, having had 71 of them. The first was licensed in 1885, and the last in 1900. The most ever trading at the one time was 64 and that was in 1892. Today there are 12 pubs still trading, together with 5 licensed clubs.



An early view of the hill showing the broken nature of the surface, which was to give Broken Hill its name. The mine is the Block 13 mine of BHP, c.1885. (*The Richest Lode*, page 57)

Menindee

According to John Forsyth's *How and Why of Station Names*, Menindee is believed to be derived from the aboriginal word Mendie meaning the "yoke of an egg". An early spelling was Menindie. Forsyth also says that it appears in the Government Gazette of 17/6/1859 as Perry.

[8] Local folklore would have you believe that Broken Hill was at one time no.2, but I have not been able to prove this.

Another version of the name is that the Barkindji people, who moved up and down the Darling River, called the Menindee Lakes "minandichee" and this word, corrupted in translation, became "menindee", the name of the lakes and the town.
Menindee is situated on the Darling River and as early as the 1850's it was a river port. In 1860 Burke and Wills stopped briefly in Menindee on their way to the Gulf of Carpentaria.
The first settler in Menindee was Tom Pain who arrived in 1852 with his family. He opened the Menindee Hotel in 1853. Now known as Maiden's Menindee Hotel, it is considered the second oldest hotel still in continuous operation in New South Wales.
Menindee is the oldest town on the Darling River and the oldest town in western New South Wales[9].

Mt Gipps

Mt Gipps is actually a mountain of sorts and is said to be situated about 8km north of the Mt Gipps railway station. It was named by Sturt after Sir George Gipps, who was the 9th Governor of NSW, from 24/2/1838 to 11 July 1846. The Mt Gipps name is synonymous with at least 2 different hotels, one of which remains near the station and, after being closed for 32 years, has been reopened as part of the new Broken Hill Resort (yes, a resort. Believe it or not!!). There was, and still is, a Mt Gipps Sheep Station which when established in the 1870's had an area in excess of 1 million acres. It was in the homestead on this station that a meeting of the original Syndicate of Seven formed BHP. The railway station is close to Stephens Creek Dam, and in the days of water trains it was a water discharge point.

Silverton

Silverton, 26km north west of Broken Hill, was established and grew with the mines close by. It is believed that the name was transposed from Silverton in the Fleurieu Peninsular south of Adelaide, as many of the earlier miners at Silverton NSW came from that region.
Silverton had a population of 3000 by 1890 and boasted 9 pubs and 4 breweries, one of which was an early Resch's brewery. There is now no commercial mining near Silverton and the population is about 50.

Sulphide Street Station

Sulphide Street Station was the main passenger station in Broken Hill for the Silverton Tramway. Curiously, the access to the station is not from Sulphide Street but from Blende Street, so why is it called Sulphide Street Station? According to retired STC driver Ron Carter, the line from Railwaytown to Sulphide Street Station (and on to the North Mine and ultimately Tarrawingee) traversed its own right of way from Railwaytown between the parallel Blende and Beryl Streets. There were about 6 streets to cross on the level, and after crossing Bromide Street, the next one was Sulphide Street, which you didn't cross. Therefore it's Sulphide Street Station!! Simple!

Tarrawingee

Like many places in the outback, Tarrawingee is an aboriginal name, but no one seems to know its meaning. Of interest, as well as being called Tarrawingee, the settlement was also called Torrowangee (and other similar spellings). Why?
Lew Roberts in his book "Rails to Wealth" gives an answer thus:-
As Tarrawingee grew, it acquired a Post Office. The name caused problems for the postal authorities, who were at that time (pre 1901) State based, because there was a Tarrawingee in Victoria. The

[9] Aussie Towns website. https://www.aussietowns.com.au/town/menindee-nsw Accessed 6/4/19.

answer was to change the spelling to Torrowangee. Simple. Except that the NSW authorities didn't see it that way and retained the original spelling for any state based matters, such as the tramway operation.
Amusingly, the Station Master worked in the SM's office which was on Tarrawingee station, whilst his wife, who was Postmistress, worked in the Post Office, which was also on the station, but considered to be in Torrowangee! As I said, simple!

Gary Hughes, April 2019.

THE RAILWAY LINE TO BROKEN HILL

THE RAILWAY DEPARTMENT'S RESPONSES TO MEET THE REGIONAL GEOGRAPHICAL, ENVIRONMENTAL AND CLIMATIC CHALLENGES

In the essay relating to the 1919 station building, there is a lengthy list of reasons why Broken Hill may be classified as a unique city.

There is an equally lengthy list of responses by the New South Wales Railways to address the various challenges that the construction and operation of the railway line involved. In many cases, these are policies, practices and events that did not occur anywhere else on the New South Wales railway system. By their implementation, these initiatives also refute the claim by the residents of Broken Hill that the Railway Department did not allocate to their city and the western region generally its fair share of the public purse for rail transport.

The specific headings below list the challenges presented by the physical geography and climate of the region and the responses in point form by the Railway Department in relation to the construction and operation of the line.

THE CHALLENGE - THE ENORMITY OF NEAR-UNLIMITED LAND THAT WAS SPARSELY POPULATED

THE RAILWAY DEPARTMENT'S RESPONSES

- The large distance resulted in simultaneous construction of the railway line from both ends
- The large expanse of near-flat territory facilitated extensive flooding from Darling River on several occasions. The longest period of any line on the system closed and re-opened due to floods occurred both sides of the Darling River (between 11th May & 4th July 1956 (*Annual Report* 1956, p. 19)
- The use of the longest train passing loops occurred on the western region because of the absence of land availability restrictions,
- Double automatic crossing loops (each 3,000 feet long) were restricted to the western line (Yarrabandai and Kaleentha were the first to be open for traffic, followed by Kinalung in 1971 and Matakana and Darnick in 1972 and Trida in 1974),
- Three-beam headlights were trialled on 32 class steam locomotives between November 1935 and 1937 to improve night-time train operations
- One benefit of the absence of restriction of land was the use of triangles for the turning of locomotives rather than turntables. The western region was the location of the most

numerous locomotive triangles on a single railway line – at Menindee, Horse Lake and Kinalung – a distance of 37 miles (ARH, August 2011, pp. 9 and 11),

- The availability of land enabled Ivanhoe locomotive depot location of the largest locomotive depot to be placed on a leg of a triangle,

THE CHALLENGE – THE HARSH CLIMATE

THE DEPARTMENT'S RESPONSES

- There was a need for water trains to operate at several major periods between Menindee and Broken Hill and regular weekly operation of water trains between Ivanhoe and Menindee in the 1940s and 1950s,

- Due to the absence of groundwater and minimal rain, the western line was the only location where fabricated steel water tanks were positioned at ground level (at Darnick and Roto – water transferred by gravity from water gins to ground level tanks then pumped to elevated locomotive tanks),

- It was the only area of New South Wales where building designs were changed with regard to ambient temperatures (design of Californian Bungalow style, precast concrete buildings in 1920s),

- The only location where a train (i.e. Broken Hill Express) was timetabled specifically at night to operate at times of lower ambient temperatures was on the Broken Hill – Parkes section,

- The first use on the New South Wales rail system of second-class sleeping carriages (Pullman type with curtains coded "AL") was on the Broken Hill Express between 15th May 1933 and 4th September 1933,

- The first air-conditioned train in New South Wales was the Silver City Comet. This was an amazing policy flip as Commissioner Hartigan's policy was contrary to the use of air-conditioning,

- The first major industrial action since the 1917 Great Strike took place in the 1930s at Kaleentha Loop, which was known in the trade union press as "Hell's Gates", near Tolarno, just about a dozen miles on the eastern side of the 600-mile peg. The industrial action was stimulated by the atrocious housing conditions for fettling staff. (*West Wyalong Advocate,* 18th February 1930, page 2),

- When steel sleepers were originally fitted in the 1950s, they were coated with a bituminous product, which had to be subsequently removed because the coating melted (*Australian Railway History*, May 2009 page 161),

- The first use in the 1920s of a double roof, known in departmental jargon as a "Tropical Roof", was applied initially to an official single men's accommodation building at Broken Hill (i.e. the Tropical Roof was a second, freestanding roof above the roof of a building),

- Menindee was the only known location where the roof of a platform building was proposed to be painted white, where it was planned in 1941,

- The only location in the State to feature goods trains composed entirely of freight wagons containing drinking water was between Broken Hill and Menindee (*Australian Railway History*, August 2011, page 11),

- The invention by Broken Hill resident, John Smethurst, of the self-cleaning rainwater tank used by the New South Wales Railways occurred at Broken Hill and was used widely on the State system between 1909 and 1914,

- In 1952, the Silver City Comet became the first train to be fitted with an enhanced buffet to enable the storage, handling and serving of "quick-frozen food" (*Barrier Daily Truth*, 16th May 1952, page 1),

- The use of open pole lines to operate electric staff instruments was "a bit tricky" due to the extreme heat, according to signalling guru Graham Harper. Hence, the staff and ticket system was utilised between Menindee and Broken Hill,

- Graham Harper also comments: "The sandy ground around Gum Lake and other places made the use of long runs of channel iron undesirable, so points and catchpoints of intermediate sidings were controlled by separate levers, rather than being connected by channel iron to a single lever".

THE CHALLENGE – ADDRESSING THE STRATEGIC LOCATION

THE DEPARTMENT'S RESPONSES

- Broken Hill was located near the South Australian border and acted as a gateway for the provision of goods and services from Adelaide rather than from Sydney. Because of the significant distance and the economic and social links with Adelaide, the New South Wales Government was to reluctant and slow to supply essential services, including railways, to the area,

- The only Pioneer line to feature 80-pound rail was the railway line between Condobolin and Broken Hill. (Jim Harvey, *Australian Railway History*, September 2003 page 326 and G. T. Webb, *The Australian Government Railways Since Clapp*, A Paper presented at the Australian and New Zealand Railway Commissioners' Conference, Hobart, 1974, p. 28 and G. H. Fearnside, *All Stations West*, Sydney, Haldane Publishing, 1970, Appendix "D"),

- The only Pioneer line where the planners thought that one day the line would play a different (mainline) role was the Condobolin to Broken Hill railway (the dream of a transcontinental standard gauge railway was reflected in the 1945 report by Harold Clapp),

- The only narrow gauge common carrier line owned by the New South Wales Government was the privately built branch line from Broken Hill to Tarrawingee. The branch line was the only instance when the New South Wales Railways engaged a contractor (i.e. the Silverton Tramway Company). The only instance of the New South Wales Government authorising the construction of a publicly-owned, narrow gauge passenger railway line was the branch line from Racecourse Junction on the Tarrawingee line to one of two of the Broken Hill racecourses,

- It was the strategic location of Broken Hill near the South Australian border and on the future transcontinental railway that prompted the approval for the construction of the largest above-ground platform building (i.e. the present station) between 1906 and the present outside Sydney, Newcastle and Wollongong. Also, the Broken Hill structure was the only (part) two-storey platform building opened on a rural branch line (the present station was opened in 1957),[10]

- The present Broken Hill station structure is the only brick building erected on a rural line after World War Two until the 1980s,

- The location of the city on a very rich line of lode and adjacent to the border provided the basis for the most successful private enterprise common carrier in New South Wales (namely, the Silverton Tramway Company),

- The strategic position of Broken Hill was reflected in the largest number of transhipment gantry cranes in New South Wales, due to the foreshadowed requirement of transferring mineral ore and coal between New South Wales and South Australia if coastal shipping ended during World War Two,

- The border between NSW and South Australian was the only instance in World War Two to allow cross-border rail travel without a permit (*Daily Telegraph*, 11th February 1945, page 15.),

- The only emergency crossing loops opened during World War Two to be brought into operation were located at Tiuna and Box Tank (*Australian Railway History*, August 2011, page 11),

- Broken Hill was the only town or city in New South Wales to welcome the report by Harold Clapp on interstate track gauge unification (because track standardisation would have

[10] Up to the public timetable issued on 12th June 1927, the sections between Menindee and Broken Hill and Condobolin to Ivanhoe were listed as "branches". On the day prior to the opening of the section between Ivanhoe and Menindee (public timetable issued on 6th November 1926), and thus the completion of the line, the Condobolin-Broken Hill line was listed under "main line", along with the Orange-Bourke line.

resulted in the construction of a new, single railway station in a more central location in the city),

- The need to build a transhipment yard with the Silverton Tramway Company resulted in the largest single sale of Departmental staff residences – 22 were sold in a single auction in 1941,
- Broken Hill was the first location to tranship LCL containers (in 1949, *Railway Transportation*, January 1969, p. 20), &
- Broken Hill was the only city served by the NSW rail system with two termini and to have two passenger trains with the same name – the Broken Hill Express – operating in different directions (one operated by the Silverton Tramway Co./South Australian Railways to Adelaide and the other by the NSW Railways to Sydney)

THE CHALLENGE – THE LARGE DISTANCES TO BE TRAVERSED IN A REMOTE REGION

THE DEPARTMENT'S RESPONSES

- It was the location of the operation of the first and only dining car (AB 90) in New South Wales (between 1927 and 1934),
- The longest light engine operation in the World occurred between Broken Hill to Parkes,
- The Broken Hill Express was the only express train to include a water gin (coded WT),
- Broken Hill was the commencement point of the operation of, arguably, the most famous freight train in New South Wales – W 44/44,
- The western line possessed the most rail triangles at various times – at Orange, Goobang (proposed), Parkes and Roto,
- The Main West was the location of the operation of the first self-propelled, diesel train (i.e. the Silver City Comet, in 1937),
- Broken Hill in 1919 was only known instance of the production of precast concrete units at the site of a station,
- Across the Darling River was the only combined railway and road bridge in New South Wales (at Menindee) using a common deck (the decision showing the Department's disregard for any potential complaints about delays to road traffic),
- The first closure of a Government owned branch line (Matakana to Mount Hope) and operation of a branch line for the shortest ever period – five years – occurred on the Main West,

- The only instance where a railway was under the control of a tramway official occurred at Broken Hill between 1919 and 1927, &
- Broken Hill was the only place where a residence for a tramway officer was subsequently occupied by a railway officer.

THE CHALLENGE – THE CONSEQUENCES OF TIME IN BOTH THE SHORT AND LONG TERM

THE DEPARTMENT'S RESPONSES

- Broken Hill was the only town or city in NSW where other than Eastern Standard Time operated and was reflected in the public timetable, although the 1957 Broken Hill station clock displayed New South Wales time at one time,
- The times for Broken Hill trains in the public timetable with the only instance where two time zones applied and were shown – these being called "NSW time" and "Broken Hill time",
- the complexity of financial compensation to be paid to the Silverton Tramway Company in 1970 resulted from the passage of time since the passing of the 1886 Silverton Tramway Act. It was not stated in the legislation whether the formula for compensation was pre or post-tax, as no tax system was in operation in 1886,
- the Department of Railways opened the only new roundhouse during World War Two to serve the western line – at Parkes. The roof featured a new design which was employed after the War on No. 3 shed at Enfield, No. 2 shed at Broadmeadow and at Muswellbrook.

THE CHALLENGE – THE ISOLATION OF THE REGION

THE DEPARTMENTS RESPONSES

- Broken Hill was the only location in New South Wales where a hostile act occurred in World War One – and one involving railways,
- The Western line was the only instance (at Ivanhoe) of a railway rest house being converted into a gaol,
- The section between Broken Hill and Menindee involved the first survey of a proposed railway route by a road motor vehicle,
- The western line was the only location to have schools conducted in railway carriages – at Darnick and Kaleentha (*Australian Railway History*, January 2006),
- The railway west of Molong at the time of line construction provided the longest section of railway without gatehouses (some gatehouses were built after line openings),

- The first use of asbestos cement sheets for external walls for official residences in 1919 and the first use of a Wunderlich standard house design occurred between Menindee and Broken Hill (for Per Way staff),

- The first use of private sector prefabricated houses using a "Hudson's Ready-cut" cottage design (in 1936),

- The largest ever, single contract for the erection of official residences, numbering 45, was signed – for the Broken Hill line (in 1947),

- "the Railways……used the Far West to move undesirables (in the Department) out of sight" (Don Estell, *Australian Railway History*, January 2018, page 22.),

- Broken Hill was chosen as one of two locations to trial the initial introduction of flashing-light level crossing signals because of the low frequency of trains (the other location was at Loftus across the Princes Highway) – see *Australian Railway History*, April 2011, page 9.

- Horse Lake was selected, because of its isolation, for the erection of the fictitious station, "Tiboonda", in the 1971 film, *Wake in Fright* (*Australian Railway History*, August 2011, page 3)

THE CHALLENGE – ENDLESS, INTENSE SUNSHINE

THE DEPARTMENT'S RESPONSES

- The first rural application of solar power for signals at remote locations occurred at Kaleentha in 1993, &

- The sun was so unremitting in its presence, requiring a special arrangement for the delivery of beer to thirsty residents. Broken Hill was the only location in the State where a brewery (Messrs. Tooth and Co.) had its own unloading stage (24 feet by 18 feet at the terminal end of No. 1 goods siding – *1944 Local Appendix West*, page 211).

THE CHALLENGE – THE ADVERSE TYPE OF SOIL

THE DEPARTMENTS RESPONSES

- The abandonment of the use of steel sleepers in the 1950s was due to movement of the sandy soil,
- The Broken Hill Express was the only train on which paper bags were issued to gentlemen to keep their hats free of dust and dirt, &
- The western line was the only location in the State where a locomotive class (i.e. 49 class) was ordered specifically for operation in one area – with pressurised cabs and engine compartments to eliminate dust.

THE CHALLENGE – RESPONDING TO THE INDUSTRIAL MUSCLE

THE DEPARTMENT'S RESPONSES

- Commissioner Garside introduced a ban on the sale of alcohol on trains when he took office in September 1948. The only train to be exempt from the ban was the Silver City Comet. Alcohol was slowly introduced back onto trains starting with the North Coast Daylight Express on 16th December 1952. (*Daily Examiner*, 16th December 1952, page 3.).
- Up to issue of the country public timetable on 6th November 1926, the former isolated track sections between Menindee and Broken Hill and Condobolin to Ivanhoe had been listed as "branches" in the public timetables. With the operation of the Broken Hill Express, and thus the completion of the line, the Condobolin-Broken Hill line was listed under "main line", along with the Orange-Bourke line in all subsequent public timetables.

A special thanks to John Watsford, ARHS Member and all-round good-guy, for reviewing the text.

Stuart Sharp and Gary Hughes

9th April 2019

VISUAL CONNECTIVITY TO AUSTRALIAN CULTURE

WHAT THE RAILWAY STRUCTURES OF BROKEN HILL TELL US ABOUT OUR PAST DEVELOPMENT

In 1969, $35 million was spent on structures at Broken Hill in conjunction with the introduction of the uniform, standard gauge rail service across Australia. The station building was extended, the platform straightened and lengthened, a new large goods shed and a new, joint locomotive depot were built to serve New South Wales, South Australian and Silverton Tramway locomotives in their new role of shunting the mines. The image here shows the combined rest house to accompany the new locomotive depot. It is not the interesting design, nor the appropriate colour of the bricks that are most striking aspect of the project. It is the commitment to care for the railway staff that is the key message derived from an examination of the building. Even in 1969, people in powerful positions acted in a caring manner to ensure staff were well-rested and at no expense to them when they were a long distance from their homes. Image by Gary Hughes on 5th March 2019.

RAILWAY STRUCTURES AS SYMBOLS OF THE DEVELOPMENT OF THE AUSTRALIAN POLITICAL, ECONOMIC AND SOCIAL INSTITUTIONS

It is very difficult to define an Australian culture or even a single cultural feature that is unique to the country. However, the one aspect that is common to all attempts to define the culture is the importance of Australia's political and other institutions which together give expression to Australian democracy. In capital cities, visitors can see the parliament buildings and courts. In Broken Hill, the city council chambers, the court house and the mines reflect components of democracy at work, but they are not the only local physical structures that are visible expressions of Australia's political heritage.

Not many cities in Australia have three surviving railway stations. Broken Hill had a fourth station, called Railwaytown, which has been removed. Three existing railway stations in one place would, to some people, be of sufficient noteworthiness as to attract observers of all things railway. The surviving stations deserve a much wider appeal to the visiting general public because of the forces that were at play at the time of their construction and since their opening. There are no finer memorials than the three stations to commemorate the way democracy in Australia has developed since the days of the Rum Rebellion in Sydney in 1808.

It is the story of the railway links to Broken Hill that shows the way that democracy in Australia was not delivered to the people as part of the package that came with the introduction of responsible government in 1856. Democracy in Australia is a concept that has evolved over a 200-year period and has been shaped by many influences, including the provision of railways to Broken Hill. Politics and economics are closely intertwined in many democracies and this was certainly the case in Australia. This chummy relationship worked from 1778 until about 1945 to keep the states and territories of Australian apart in terms of governance of the country and the existence of seven or eight distinct, separate economies – one in each colony/state/territory. There was no such concept as a unified Australian economy until after World War Two.

The concept of an Australian economy did not emerge before World War Two because of the absence of significant levels of interstate transport. In 1945, Harold Clapp, the one-time Railway Commissioner in Victoria, concluded a report to the Commonwealth Government on the need to standardise the various Australian railway gauges. The Commonwealth Parliament did nothing until 1956 that was acceptable to the States when Bill Wentworth headed a Government Members Committee to standardise three interstate lines. These were Albury to Melbourne, Kalgoorlie to Fremantle and Adelaide to Broken Hill via Port Pirie. Another important feature of the 1950s that had an impact on Broken Hill was the decision by the Privy Council in 1954 to uphold the Hughes Vale legal verdict in 1952, which allowed unfettered interstate road transport for the first time in the history of Australia.

The railway stations of the NSW Railways in Broken Hill tell the tale of, firstly, the way the NSW Government tried to implement its policy of an exclusive NSW economy and, secondly, how it came to change that policy and moved towards the emergence of an Australian economy. These changes

in the structure of the economy were supported by changes in the nature of the Australian democracy and vice versa.

THE 1919 NSW BROKEN HILL STATION AS A REFLECTION THE ESTABLISHMNET OF STRONG, PUBLIC SERVICE ORGANISATIONS

The 1919 railway station at Broken Hill is the product of the largest government bureaucracy in NSW – the Department of Railways. It held that title from 1870 to 1990. Standardisation of everything was a feature of life in the NSW Railways. All towns got what the bureaucracy decided, and no single Member of Parliament, Minister for Transport or local town councillor was sufficiently influential to get his or her own style of station building erected.

In 1919, the style of democracy was such that big government departments were the power houses of politics and, so far as rail transport was concerned, it was supported by the provisions of the Government Railways Act, 1888, which stated that the Railway Commissioners managed the railways, not politicians. When the first station at Broken Hill was constructed in 1919, the NSW Railways prided itself on being almost 100% self-sufficient in the products required for the conduct of rail services. All the planning was done in-house. The concrete moulds for the 1919 platform building were made by the department and all the components of the concrete itself were mined in departmental quarries, with a few exceptions. Some commentators may argue that concrete buildings were unsuitable for the Broken Hill climate. This is largely correct, but it is not the point so far as the railway administration was concerned at the time. Up until 1921, no railway structure of any type was specially planned for a particular prevailing climate. Each location got exactly the same design, regardless of climatic conditions. In 1921, the NSW Railways did something it had never done before. It produced standard plans for official residences in the Western District of New South Wales, with additional verandahs but still in concrete. Had Broken Hill station been built a few years later, the design may have been different. Had Broken Hill received a NSW station before 1890, certainly it would have mirrored the status of the city by the inclusion of stylistic features of structures.

Broken Hill got a station in 1919 that shows the political, bureaucratic and democratic conditions in 1919. State legislation did not allow politicians to over-ride the decision of the Chief Railway Commissioner. Hence, Broken Hill got a building which the bureaucrats decided to allocate. It was just the same as every other rural branch line. Unfortunately, the NSW Government did not allocate sufficient funds to allow the Chief Commissioner to provide a structure was consistent with the importance of the city it served. It was a case that Broken Hill was both a beneficiary and a victim of the rule of law.

The 1919 Broken Hill building is a source from which to draw evidence about the way Australian governance has developed. It also plays one other important function. The NSW Railways was a pioneer in the re-use of all things that were surplus to current operations. When the new (present) station was opened in 1957, the Department of Railways did not demolish the 1919 building. It continued to use the 1919 building as offices and a store for the track staff, including the local Per Way Inspector. The old station continued in use until the 1980s as staff offices. The building, thus,

stands as an important reminder that re-use of all things has financial benefits over demolition and new construction.

THE 1957 NSW BROKEN HILL STATION AS A MIRROR OF THE MATURITY OF THE AUSTRALIAN POLITICAL FRAMEWORK

The first NSW station building of 1919 contrasts in many ways with the 1957 structure and this latter building, like its 1919 companion structure in Broken Hill, tells a part of the story of Australian democracy at the time of its construction. While typical of what was being planned for other locations in the State, the 1957 station was enhanced by the provision of the roof pediment, a clock and flag standards. Up until Broken Hill station was opened in 1957, only two other stations had clocks as part of their roofing system. These were Sydney Terminal in 1921 and Cronulla in 1939. Although Albury station had a clock tower in 1880, it did not receive its clock until 1980.

Cynical people may say that Broken Hill station was the product of political direction by Ernie Wetherell, who was at the time the Member of Parliament for Cobar and Minister for Transport. He was also a resident of Broken Hill. This may be correct, but the more relevant point is that the legislative change to the Government Railways Act in 1950 allowed him to direct bureaucrats to provide a station. From 1950, legislation was enacted to permit the Minister for Transport to direct the Commissioner in any way the Minister thought necessary. Three things converged in 1954 to kick-start the decision to build a replacement station. These were:

1. The 1945 report by Harold Clapp recommending interstate track gauge uniformity,
2. The visit to Broken Hill by Queen Elizabeth II in 1954, &
3. The simultaneous visit of the State Governor, State Premier, Minister for Transport and the Railway Commissioner for the Queen's visit.

Whereas the 1919 building is a statement of bureaucratic power, the 1957 building is a statement of direct political action. It seems that the grouping of the vice-regal, political and bureaucratic chiefs collectively acted to help Wetherell allocate funds to build what was a very expensive replacement station. Having said that, Wetherell in no way was involved in the decision process about the choice of design. The decisions as to what to provide were made by the Railway Department's Chief Civil Engineer, Norm Vogan. No doubt the artist's impressions were prepared by the Department of Railway's own draughtsmen in order to show the Minister what was proposed. Wetherell liked what he saw and rightly so. More capital funds were spent on the construction of the 1957 Broken Hill station than the combined expenditure on every other station between 1945 and 1960.

It is important when considering what Wetherell did in 1957 to keep in mind that, just perhaps, he was not thinking about merely serving Broken Hill but about serving the Australian nation. After all, it was his Labor Government that had signed an agreement with the Commonwealth Government to share funding for a new standard gauge line between Broken Hill and Adelaide. Just perhaps Wetherell was acting not just in the interests of NSW but of Australia. By ensuring that a very attractive building was erected at Broken Hill, he was foreshadowing the future importance of the

trans-Australian rail line that would be completed in 1969. He determined that the 1957 station would be a building that not only mirrored Broken Hill's status but the status of the trans-continental railway and, ultimately, the development of an Australian economy to replace the various state economies.

THE 1906 SILVERTON TRAMWAY STATION AS A STUDY IN AUSTRALIAN SOCIAL CULTURE

The privately funded and privately built station building at Sulphide Street displays several aspects of Australian culture. It was designed by a non-professional employee of the Silverton Tramway Company and shows the opportunities Australia gave to people at all levels to be creative and contribute to the welfare of society. It was built by craftsmen and its exquisite construction reflects the work of governments to set not only high building standards for all public structures but also a high level of technical training for building apprentices.

The designation of the waiting rooms reflects the care of those in charge to treat women in a special manner. They had their own waiting room and access to their toilet was protected from public view and public access by the use of the waiting room as an anti-chamber to the toilet. They would have been given special furniture and the colour scheme of their waiting room would have been more pleasing than the paintwork on the other spaces within the structure. What is significantly absent is the allocation of any space allocated to Aborigines and anyone else who was not of Anglo-Saxon origin, such as the Afghan camel drivers. In essence, there was no discrimination based on race.

The use of awnings on both sides of the structure is commonplace on Australian buildings and is an acknowledgement of the unique climatic features in which Australian Railways operate. The widespread use of awnings was adopted from the practice of British-built railways in India.

Tickets were sold through a narrow ticket windows and the design of these facilities followed the British practice. In so doing, the Sulphide Street building reflects the technical origin of virtually the entire book of rules and operating procedures for Australian railways.

This is the 1902 official residence built for the Tramway Superintendent. It was occupied by the Station Master following the closure of the steam tram system in 1926. When constructed, it was the largest single-storey official residence built from 1855 and its size and elegance were never bettered. It is a structure commensurate with the timing of the Sulphide Street station, but it is the residence that displays a design in keeping with the prevailing thinking in the architectural world. This is evident in the use of timber posts and simple timber brackets supporting the verandahs, rather than the use of ironwork. The omission of contrasting materials around the windows and the absence of roof finials also help to express contemporary design features. No doubt this building was well-received by the Broken Hill City Council as the design accurately demonstrated the economic and industrial importance of the city. The structure incorporated tramway offices at the rear and tram staff were paid from this structure. The additions on the right-hand side were made in 1911. Also, there is some evidence to indicate that, prior to the completion of the 1919 NSW station building, the residence was used to sell railway tickets. The house is located at 253 Wills Street. Its outstanding presentation today was not related to the goodwill of the NSW Railway Department. The opposite was the case. The Department neglected to maintain the structure and it was forced to build a new house for the Station Master in 1981 at 265 Wills Street. The 1902 dwelling is privately owned and public access is not permitted. Image by Gary Hughes on 26th June 2010.

This image by Gary Hughes on 2nd June 2010 shows the replacement residence for the Station Master at 265 Wills Street. Tenders closed on 29th October 1980 for the construction of the three-bedroom brick veneer residence. For an unknown reason, tenders were called a second time, closing on 4th February 1981.[11] *Tom Manning, who was a former Station Master at Broken Hill, commented that this house was built for him because the plaster fell from the ceiling of the 1902 house due to mining and, following an inspection of that residence, the first house was deemed unsafe and left vacant.*[12] *It was not until 1982 that the new residence was ready for occupation.*

THE WAYS THE RAILWAY STRUCTURES HELP TO TELL THE HISTORY OF BROKEN HILL

WHAT PART OF BROKEN HILL HISTORY DOES THE BUILDING/STRUCTURE TELL?	HOW DOES THE BUILDING/STRUCTURE TELL THAT PART OF THE HISTORY OF BROKEN HILL?
1919 NSW STATION BUILDING	
The building reflects the insulting treatment of Broken Hill by Sydney politicians and bureaucrats	The structure has no design features; it is located distant from the city commercial centre and is on the wrong side of the tracks; there is no identifiable pedestrian entry point
People of Broken Hill thought that people in Sydney got more and better infrastructure	Concrete was not generally used in Sydney for railway station construction, but the Railway Department considered (wrongly) that it was suitable for Broken Hill

[11] *NSW Digest* January 1981, p. 13 and *NSW Digest* April 1981, p. 113.
[12] Oral advice from Tom Manning on 2nd April 2012.

WHAT PART OF BROKEN HILL HISTORY DOES THE BUILDING/STRUCTURE TELL?	HOW DOES THE BUILDING/STRUCTURE TELL THAT PART OF THE HISTORY OF BROKEN HILL?
Governments in Sydney falsely viewed The Bush as a unified entity – Broken Hill was completely different to any other inland city	The design of the building at Broken Hill was exactly the same in all rural areas of the State
Women were treated as special railway travellers	Women were provided with their waiting room, with better seating and improved internal colour scheme in their space; their toilet was protected by an ante-chamber (i.e. the waiting room) and their accommodation was nearly always contained within the main platform building.
The NSW Government policies between 1910 and 1930 were focussed towards closer settlement in rural areas in the hope of getter more people on The Land	The very existence of the railway line and station linking Broken Hill with Sydney attests to the zeal to open interior lands for settlement, despite the awareness the line would not pay its capital or operating costs
Strikes were an important part of Broken Hill's history - "the most riotous incident" of the 1917 Statewide Railway Strike involving 70,000 strikers occurred at Broken Hill where a "scab" fireman was shot while working on his locomotive	The building was made under the direction of Railway Commissioner, James Fraser, whose objective was industrial efficiency – the building is simply a large "Lego" kit and is a prime example of such efficiency
The water trains that operated between Menindee and Broken Hill in 1952 saved the city from a drought crisis	It was from this station that the water trains were managed
1957 NSW STATION BUILDING	
The 1945 report by Harold Clapp on interstate railway gauge unification	Broken Hill was the only town/city in NSW which supported Clapp's plan.
Introduction of modernisation in building design	The use of the large, single-pitched roof; The application of light-coloured bricks;
The introduction of new materials & ideas in the provision of station fittings	First use of stainless for a toilet urinal; Use of moulded Plywood for seats in general waiting room; Perhaps the first station to have a new style of platform seating
Residents alleged that governments in Sydney never did anything for Broken Hill, yet Broken Hill received the most-costly station since Sydney Terminal in 1906, apart from the City Circle	Part two-storey construction; High degree of visibility; Flag staff pediment.
Awnings over platforms are a strong identifier of Australian station design	The roof and awning on the building form the largest single-pitched or

WHAT PART OF BROKEN HILL HISTORY DOES THE BUILDING/STRUCTURE TELL?	HOW DOES THE BUILDING/STRUCTURE TELL THAT PART OF THE HISTORY OF BROKEN HILL?
because of the high, summer temperatures	skillion roof of any railway station in Australia
Broken Hill station plays an important part in the trans-continental railway	The length of the platform, which extended with uniform gauge in 1969 made the platform the fourth longest in the State. The massive size of the parcels office at the Sydney end reflects the envisaged high level of business
1905 SULPHIDE STREET STATION	
The city was very much built on the basis of private enterprise, not government institutions	The elegance of the design and the locally-sourced building materials were the work of the Silverton Tramway Co., not the NSW Government
Respect for women	By the internal space allocated for women and the use of an ante-chamber to protect their toilet; by the placement of the male toilet at the end of the building
The ultra-strong link to South Australia rather than NSW	Manifested by the style of the platform awning, the use of stone for the wall materials and the overall building design
1902 NSW TRAMWAY/STATION MASTER'S RESIDENCE	
The economic importance of Broken Hill as the State's third-largest city	The structure is the largest surviving item in Broken Hill associated with the former steam tramway system. The Tram Superintendent's house was the largest, most elegant single-storey official railway and tramway residence ever built in NSW.
THE 1969 COMBINED STAFF REST HOUSE	
The welfare of every individual counts when they are at work; the Railways was a unique industry which endeavoured to retain a high-level of camaraderie	By the decision to erect the rest house, notwithstanding the availability of accommodation in hotels and motels; Through the use of a common dining and kitchen facilities where individuals could meet people with similar work experiences
The railways was a local employer which cared for staff and their families and contributed to the housing needs of the city	Railways was a unique industry which endeavoured to retain a high-level of camaraderie
1952 OFFICIAL RESIDENCES	

WHAT PART OF BROKEN HILL HISTORY DOES THE BUILDING/STRUCTURE TELL?	HOW DOES THE BUILDING/STRUCTURE TELL THAT PART OF THE HISTORY OF BROKEN HILL?
Railways was a unique industry which endeavoured to retain a high-level of camaraderie	Railways were recognised the need to help staff obtain housing and built the four residences in Wills Street
THE 1952 IODIDE STREET BUFFER STOP	
Despite the isolation of Broken Hill staff from the Sydney headquarters, the local railway staff actively participated in the long-held tradition of recycling materials	The re-use of old railway lines for vertical posts in the re-use of redundant steel sleepers for the horizontal elements

These three official residences are located at, from the right, 267, 269 and 271 Wills Street, though they face Galena Street. They are now privately owned and public access is not allowed. After 1945, the Department of Railways virtually ceased building family staff houses, but there were a few exceptions – one being at Broken Hill. Between 1950 and 1952, the Railway Department approved plans for the construction of pre-fabricated houses built by Vandyke Brothers from Sydney. They had been producing trade catalogues since the late 1920s and issued a design for cheap, prefabricated houses in 1937. The houses were constructed by the NSW Housing Commission, but they were funded by the Railway Department and occupied by railway staff. Life-long Member of the ARHS, Don Hagarty, lived at 267 Wills Street when he was a relatively junior engineer in the mid-1950s. they are timber framed and clad externally with asbestos cement sheets. Few official residences were built in the 1950s despite the housing shortage in the city and at other country locations. Their erection shows special priority for the housing crisis in Broken Hill. At the same time as the three houses were provided, a contract was let for the erection of quarters at Broken Hill to accommodate 32 single men. The Department said in its 1952 Annual Report that "prefabricated units were sent forward". These were probably built for the staff operating the water trains in 1952, but the location of the structures is unknown. Perhaps the Department

was aided by a direction by Ernie Wetherell to build the four houses in what was his home city? Image by Gary Hughes on 28th October 2012.

CONCLUDING REMARKS

In 2019, the structure of Australian political, social and economic institutions has not changed since the opening of the second New South Wales station in 1957. Students today can go to Broken Hill and look at what the bureaucrats built in 1919 and what the politician did in 1957. They are in a position to decide which is the better model of democracy - authority by the bureaucratic institution or authority by the elected Parliamentary institutions or something else. Students can also go to the Sulphide Street station and interpret the various ways the building casts light on Australian social and economic institutions.

The various, surviving railway structures in Broken Hill not only have contributed to the history of the city but also reflect it. They also communicate the history of the NSW Department of Railways and the Silverton Tramway Company. It is possible to touch the fabric in much the same way as one holds a photograph. It is important to our nation that every effort be made to conserve the heritage values contained within the sundry of structures.

The ash stop terminates a siding adjacent to the Iodide Street level crossing of the main line. Like many places on the NSW rail system, steam locomotive ashes have been used as buffers to prevent vehicles leaving the rails in sidings, especially in places as this where there is a nearby road. What makes this no ordinary ash stop is the recycled use of steel sleepers, which had been laid in the 1950s as an experiment. Unfortunately, they had to be removed because they were unstable in the sandy soil conditions. Old rails have been used for the posts. The NSW Railways is perhaps the oldest recycler in the State and was re-using materials for approximately 130 years from 1855 to 1985. The ash stop is a relic of the culture of the railway organisation and is evidence that the railway staff in Broken Hill actively participated in the recycling philosophy. The 1919 station building is in the distance. Image by Gary Hughes looking towards Sydney on 6th December 2010.

Stuart Sharp and Gary Hughes, 7th April 2019

"WHAT A SURPRISE!"

THE BIG CITY WITH A COUNTRY-BUMKIN BUILDING

The first Broken Hill station site in 1962. The different roof colour at the far end of the platform building denotes the addition of the ladies' waiting room and toilet in 1927. The roof of the building at the end closer to the camera also shows the addition (for an enlargement of the parcels office), but it is masked by the shadow of the tree. The 1942 signal box at the western end (right-hand side) of the platform building exists, having been renamed Broken Hill Yard Box in 1957. It closed in 1970. At the extreme eastern end of the platform (left-hand side), there is a corrugated iron shed belonging to per way staff. Note that only the timber work has been painted. Behind that structure was the male toilet. The goods shed has an unusual design of double-gable roof. This was a very rare roof style on the NSW Railways, the only other examples being at Camden and Taralga. Note the absence of urban development. The station site was on the fringe of the city. Image No. 064652, ARHS Resource Centre.

WHAT THIS ESSAY COVERS

This paper broadly tells the story about the passage of time leading up to the decision in 1912 to build the railway between Condobolin and Broken Hill. It sets out the history before the arrival of the first train in 1919 and continues to tell the tale of what happened between 1919 and the announcement of the replacement station in 1954. A separate essay takes up the story from 1954 to the present.

THE EXPLANATION OF THE ESSAY TITLE

Well-known railway traveller and chronicler of the New South Wales Railways, Tony Woodland, was only a lad when he relocated with his parents to Broken Hill in 1955. His father was a primary school headmaster who had taken up a promotional appointment in the city, having been previously at Trundle. Tony wrote:

> "Broken Hill WAS different and still IS different…. Dad was used to BIG TOWNS having BIG STATIONS, such as Wagga Wagga, Parkes and Goulburn so the old Crystal Street station was a surprise".[13]

The station at Broken Hill was such a surprise that it was not until the Comet power van ran around the train that Tony's Dad realised that they had arrived at their destination.[14]

The disparity between the size and significance of the city and its first railway station was more dramatic because "Broken Hill is probably the most unusual city in Australia", at least according to author, Ward McNally.[15] Therein lies a tale. For a 'normal' city, having a pathetic station building may have been due to a planning miscalculation by a Railway official. In the case of Broken Hill, the structure provided by the New South Wales Government was so disgraceful that it makes the casual observer suspicious of a more devious plan. This misalignment between city and station continued with the opening of the replacement station in 1957. Academic, Brian Kennedy, put the mis-alignment another way. He used a contemporary source from 1888 which argued that there had never been a town with such high economic value whose neglect by the New South Wales Government was so great.[16]

The two New South Wales railway stations at Broken Hill – the original built in 1919 and its replacement in 1957 - are perplexing for opposite reasons. Between 1919 and 1957, the original station was deplorably ugly and symbolically inadequate for what was at the time the third largest city in New South Wales. The provision of such a pathetic terminus seemed to be a penalty for the city's very different history, compared to most other country towns and cities in the State. From 1957 to 2019, the replacement station has been an interesting case of a massive expenditure of public funds for an absolutely minimal train service. In the case

[13] T. Woodland, *Rail Tales of New South Wales*, Cowrail Publications, Greystanes, 2005, p. 13. The uppercase words are those of Tony Woodland.
[14] T. Woodlands, *Rails at "The Hill"*, Greystanes, Cowrail Publications, no date, p. 3.
[15] W. McNally, *To Broken Hill and Back*, Camberwell, Widescope International Publishers, 1975, p. 35.
[16] B. Kennedy, "Regionalism and Nationalism in Broken Hill 1880s", *Australian Economic History Review*, March 1980, p. 66.

of the 1957 station, a claim could be successfully argued that there was a gross misallocation of public money for a railway station.

What Broken Hill never got was a railway station commensurate with the status of the city. Before 1957, the station significantly under-scored the importance of the place and, after 1957, the station significantly over-scored the significance of the city, not to mention over-stating the Department's capital works policy which gave a low-priority for capital funds for station buildings at any location.

Let's begin. This essay deals with the first station and its history from 1915 up to 1957.

SO, WHAT MAKES THE CITY OF BROKEN HILL DIFFERENT?

The city was different to other towns and cities in New South Wales for the following reasons:

- it was the only town or city in New South Wales to be served by two different railway owners each with its own railway station,
- it was the only place in the State where a passenger and freight railway (i.e. the Silverton Tramway Company) existed in the city prior to the passage of legislation by the New South Wales Parliament to build a government line to that place,
- it was the only country town or city served by rail that was "not socially linked to its governing state",[17]
- it was one of only three locations served by rail (Cobar and Captains Flat being the others) where the primary industry was mining,
- it was the only railway line that was constructed following the pressure of blue-collar workers rather than wealthy capitalists,
- it was the only place where the prosperity of the railway system did not depend on future economic growth,
- it was the only spot where industrial militancy resulted in widespread social and other benefits to blue-collar workers,
- it was the only locality where the provision of fuel supplies (i.e. access to firewood) was envisaged as the primary benefit of the proposed railway,
- it was the location in the State up to at least the 1960s where every other clock, apart from the clock at the 1957 NSW station, indicated South Australian time,
- it was the only town or city in NSW to corrupt the name of a local/regional geological feature of the landscape, namely the Barrier Ranges, to form a symbol of local, defiant militancy – local organisations dropped "Ranges" and utilised "Barrier" only, as in the Barrier Industrial Council, the Barrier Highway and two local newspapers – the *Barrier Miner* and the *Barrier Daily Truth*,
- it was the only district where the geography, isolation and climate stimulated a considerable amount of engineering and operational innovation in the provision of the rail service, &

[17] J. Harvey, "The Broken Hill Rail Link During World War II", *Bulletin,* September 2003, p. 324.

- it was the only railway project where there was widespread lethargy and sometimes opposition on all sides of politics in Sydney to the construction of the line.

It was the miners rather than the mine owners that pressed for the construction of the railway between Condobolin and Broken Hill. The miners wanted access to the eastern seaboard for their holidays. They wanted to be able to have some recreation time at Menindee on the Darling River. They needed the railway to bring firewood to their homes for heating and water for consumption. Not one director of any of the mining companies ever lived in Broken Hill, apart from the original syndicate members from Mount Gipps pastoral station.

It was the industrial strength of the miners that allowed games of two-up to be played weekly when it was banned at every other place in the State. When Railway Commissioner Garside ceased alcohol sales on trains between 1948 and 1952, the only train to be exempted was the Silver City Comet. It was the only railway station in the state where passengers were allowed to sleep overnight in a queue on the platform in order to line up for tickets on the annual miners' special trains.

WHAT HAS ALREADY BEEN PUBLISHED ABOUT THE TERMINUS?

Our dear colleague, Cyril Singleton, penned a lovely story nearly 60 years ago about the terminus. This is what he had to say:

> "The original New South Wales railway station at Broken Hill was always referred to as "Crystal Street" to distinguish it from the Sulphide Street station of the Silverton Tramway Company. Allowing for the fact that its opening was hurried and anticipated, the completion of many items, including gates and parts of the fencing, it was by no means of a standard to grace the terminus of what was to be the New South Wales system's longest line of railway. A cramped concrete unit station building, totally unsuited for such a torrid climate, faced the 250 feet long platform, later lengthened 400 feet and, to make it even more inconvenient, on the side of the line remote from the city".[18]

Singleton argued that the opening was rushed because the city was short of drinking water and it was essential to provide water trains between the Darling River and the city. Was 'Sing' correct in his statement that the opening was rushed? For a start, the Railway Department never made any attempt to replace the initial concrete unit building until 1954. Moreover, the completion of the Crystal Street platform building was not essential to the operation of water trains and, indeed, tickets were being sold from the tramway office in Railwaytown, a suburb on the other side of the city. The argument that the pathetic state of the building was due to urgency does not hold water considering:

- The legislation had been passed in 1912,
- Track work had started in 1914,
- Construction of the platform wall was completed in October 1916,

[18] C. C. Singleton, "Railed Transport in the Broken Hill District", *Bulletin*, July 1962, p. 98.

- Three plans for timber and concrete buildings had been approved in 1917 and 1918,
- Freight was being conveyed on the line from mid-1918, &
- Tickets were being sold from the platform building in March 1919, some four months prior to the official line opening.

Singleton's explanation of a hurried start seems more related to an understandable bias relating to his employment with the Railway Department rather than an assessment of the evidence.

The story of the terminus requires a rewrite with the proposition that the Railway Department acted intentionally in providing a low-status building for the city because no one, including the Railway Department and the Government, believed that the proposed line would be nothing but a loss-making venture.

WHAT IS THE DIRECTION OF THIS ESSAY?

The centenary of the passing of the legislation to connect Broken Hill with Sydney by rail occurred in 2012. No ceremony was held to mark the century since the passing of the legislation. That is no surprise. Who would commemorate what politicians were paid to do – legislate?

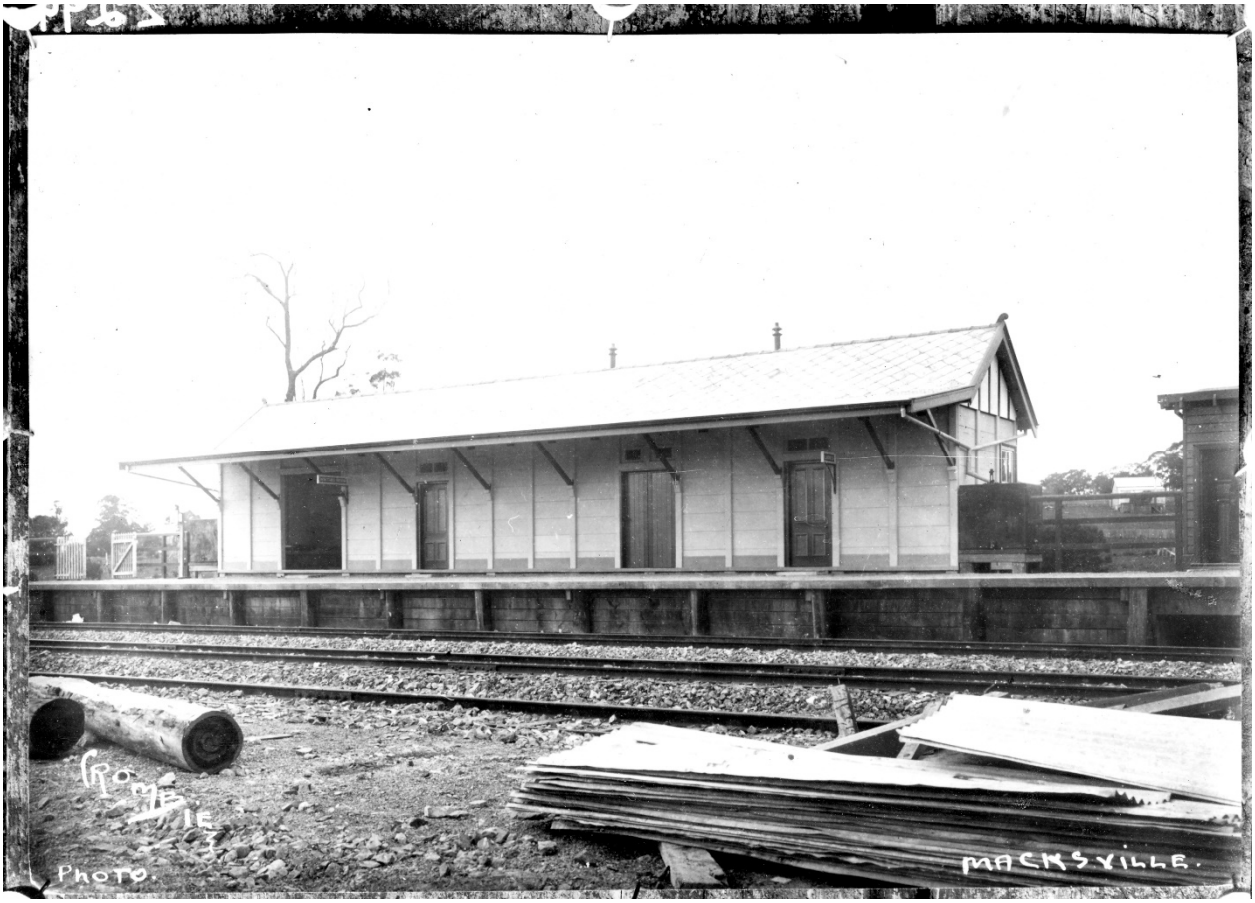
What happened in the years between 1912 and the opening of the station at Broken Hill in 1919 is a story that ended with the emergence of arguably the most technically significant building in Broken Hill's history, even though the Railway Department acted inappropriately in providing a plain-looking, basic, functional building and, in the process, demeaned the city. This paper relates the history and, in part, emphasises the unusual significance of the 1919 building. It argues the case for the building's long term conservation and, possibly, adaptive re-use so that, in its centenary year and thereafter, the structure may be celebrated as an Australian historical enigma.

THE DEVIL AT THE DOOR

When the Devil is knocking on the door, it is wise to leave the door shut. This good advice was assiduously applied by the New South Wales Government when it rejected the proposal by the South Australian Railways to build a government owned railway across the SA/NSW border to Broken Hill in the 1880s. That good advice was not consistently followed as the New South Wales Parliament allowed the Devil to take a foothold in New South Wales when it legislated on 14th October 1886 to allow the Silverton Tramway Company to build and operate a narrow gauge railway line from Cockburn to Broken Hill. Operations commenced in 1888 and ceased in 1970.

As soon as the railway opened between Broken Hill and Adelaide, there was local pressure for a similar link to Sydney. Luckily, there was good fortune for the politicians on the eastern seaboard. There were opposing views in Broken Hill, with one group proposing a line via Cobar and Wilcannia. A second group sought a link via Condobolin and Menindee. Legislation was passed in 1890 to authorise the construction of the railway between Nyngan and Cobar. In 1891, the Parliamentary Public Works Committee recommended a link from

Cobar via Wilcannia to Cockburn west of Broken Hill on the border. A Bill was introduced into State Parliament but lapsed. In 1892, Broken Hill City Council and a number of citizens petitioned the New South Wales Government to construct a rail line between Broken Hill and Menindee to enable water to be transported from the Darling River. The Bill was defeated in Parliament.[19] The Parliamentary Public Works Committee recommended in 1895 a link from Parkes to Condobolin and in 1896 the extension from Condobolin to Broken Hill. As long as there was an absence of unanimity in Broken Hill as to the preferred route, there was no great pressure on the State Government to do anything other than talk and promise.



Concrete unit buildings of similar size to that at Broken Hill were erected at Macksville, Bombala, Ballina, Eugowra, Rankins Springs and Hillston. These were all puny places of much lower importance than Broken Hill. The photograph shows the example at Macksville, which is extant. One interesting aspect is the timber platform wall, which was applied to all other examples apart from the one at Broken Hill. Why? Was the experimentation with concrete poured in situ part of an intended insult to the city? No doubt many Broken Hillites thought that way. Image No. 007758, ARHS Resource Centre.

GOVERNMENT PROCRASTINATION TO BUILD THE RAILWAY LINK WITH SYDNEY

The importance of Broken Hill as a big mining centre was known to the New South Wales Government in the first decade of the 20th century and this was acknowledged in the operation

[19] R. H. B. Kearns, *Broken Hill 1883-1893,* Broken Hill Historical Society, 1973, pp. 38 and 46.

of a steam tramway service between 1902 and 1926. Amazingly, in 1900 Broken Hill had grown to a population to what Singleton said (incorrectly) of 40,000.[20] Even in 1915, the population was 35,000. The only other places in New South Wales which had steam tramways were Sydney, Newcastle and Maitland.[21] So, there was no need at government level for lengthy arguments about the future prosperity of the place. That was not in question. What was in question was the isolated location and the politics of the place.

The people of Broken Hill had showed their disfavour about their political leaders in Sydney in 1888 when a public meeting was held to discuss the creation of a new state in western New South Wales to "prosecute a vigorous public works programme, including railroad and dam construction, and render the Darling River permanently navigable".[22] No doubt that action upset Sydney politicians.

In November 1904, the Silverton Tramway Company announced that it would construct "a substantial and well-appointed railway station at Sulphide Street". This news was received as an indicator in the prosperity of the city and the opportunity was taken to express anger against the New South Wales Government about its sustained neglect of the city. As evidence of this neglect, the local press pointed to the refusal of the State Government to bear the cost of preparation of the construction of walls in the rooms in the Technical College for the establishment of a Broken Hill art gallery. A newspaper described this rejection as part of the "studied neglect with which this city is treated by the central (i.e. Sydney) authorities".[23]

Local residents were thankful for the replacement Silverton station and the obvious vote of support by that Company for the future of the town. They wondered whether the New South Wales Government would show a similar interest. It took the Government eight years after the 1888 public meeting to investigate seriously the question of building a rail link with Sydney. Not surprisingly, the Public Works Parliamentary Standing Committee reported in 1896 against the construction of the line. When droughts struck in 1903 and 1907, there was community support for a rail link to Menindee but there was no government response.[24]

The Parliamentary Standing Committee on Public Works examined the connection of a railway between Sydney and Broken Hill for a third time in 1912. The first time had been in 1891 for a connection from Cobar and in 1896 for a connection from Condobolin. The 1912 investigation revisited the 1896 proposal, which had opposed construction of line, but the 1912 inquiry recommended that the missing link be built. The second attempt later succeeded in Parliament and the Condobolin to Broken Hill Railway Act (No. 64) received Royal Assent on 20th December 1912. As *Bulletin* author, Jim Harvey, wrote:

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[20] C. C. Singleton, "Railed Transport in the Broken Hill District", *Bulletin*, June 1962, p. 84.

[21] *The Staff*, 22nd November 1927, p. 652. Some of the former Tramway premises had to be demolished to make way for the extension of the good shed and carriage shed at, Broken Hill when the line was opened to Sydney.

[22] B. Kennedy, *Silver, Sin, and Sixpenny* Ale, Melbourne University Press, 1978, p. 43.

[23] *Barrier Miner*, 6th November 1954, p. 6.

[24] R. H. B. Kearns, *Broken Hill 1894-1914*, Broken Hill Historical Society, 1974, pp. 28 and 44.

> "Anticipated traffic was expected to be light because nobody believed that the Broken Hill citizens and companies would change their preference for doing business with South Australia. Consequently, the line had been built on the cheap, that is, as a 'pioneer' (or development) line with little or no ballast".[25]

Work did not start until December 1914 and bubbled slowly when it was interrupted by the takeover of construction of most lines in the State by the Norton Griffith organisation on 1st July 1915, though the contract with the NSW Government had been signed on 24th April 1915. On that day, the engineer in charge and all the men working on the Broken Hill project were transferred from the employment of the New South Wales Railways to Norton Griffith.[26] In December 1915, the company anticipated the completion of the Broken Hill-Menindee section by May 1916.[27] Work went sluggishly slow because the organisation had just as much trouble as the New South Wales Railways in obtaining money and materials. The Government cancelled the contract on 14th May 1917 because it could see that there would be no advantage in the company proceeding with the work.

The construction of the Broken Hill line was being undertaken as an unemployment relief measure. Why? Because of low mineral prices, the closure of some mines and the disinclination of the vast majority of miners to enlist in World War One as they believed that they would be fighting the capitalists' war. World War One volunteers received adverse treatment from the miners. It seems rather ironic that it was in Broken Hill, where the miners refused to fight in the war, that Afghan nationalists under the Turkish flag brought the war to Broken Hill. The two Afghans opened fire on 1st January 1915 on a picnic train and killed four residents.

The local notion of having one "central" railway station to facilitate passenger transfers between standard and narrow gauge was dashed in 1913 when a plan, prepared by the New South Wales Railways, for its terminus in Crystal Street on the edge of the city was released to the public. The New South Wales Railways considered it was reasonable for the city to have two separate railway stations. When the General Manager of the Silverton Tramway Company was asked to comment, he thought that the idea of using its existing terminus at Sulphide Street for both gauges was impractical as there was insufficient room. He applauded the proposed site for the New South Wales terminus and, thereby the notion of two, isolated stations.[28]

Preliminary work at the station area commenced on 11th June 1915 for the erection of what was termed "the central station on the Broken Hill-Condobolin railway". The station was to be set in Crystal Street near Oxide Street on the Menindee Road.[29]

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[25] J. Harvey, "The Broken Hill Rail Link During World War II", *Bulletin*, September 2003, p. 326.
[26] *Barrier Miner*, 26th July 1915, p. 4.
[27] *Sydney Morning Herald*, 2nd December 1915, p. 12.
[28] *Barrier Miner*, 12th February 1913, p. 5.
[29] *The Register*, 4th March 1915, p. 4 and 11th June 1915, p. 4.

The Railway Commissioners notified that, on and from the 16th January 1919, the railway from Broken Hill to Menindee (a distance of 73 miles 23 chains) was open for public traffic.[30] At that time, some part of the terminus building had been constructed at the terminus as, soon afterwards, a press report stated that a willy-willy caused damage "to the extent of about £40" to the station. A portion of the roofing was "torn off and a man was slightly injured".[31]

Then, for an unknown reason, the Railway Commissioners withdrew the notice issued earlier regarding the opening of the railway from Broken Hill to Menindee.[32] The withdrawal of the opening notice had no effect on train operations as there was a press report provided in the middle of March 1919 as to the contents of a goods train, it being described as:

> "besides the passengers, there were I5 trucks of firewood and eight trucks of sheep, and she (i.e. the train) arrived dead on time, said Mr. T. Butler, stationmaster of the Broken Hill terminus of the new but still incomplete Broken Hill to Condobolin railway. ….We received, in the month of February, Mr. Butler stated, 12 tons 15 cwt. 3 qrs. of general goods; 585 bales of wool, weighing 93 tons, 11 cwt., 1 qr.; and 92 truckloads of firewood weighing 911 tons 4 cwt. We sent out 106 tons of general goods and three truckloads, representing 16 tons, of hay, straw, and chaff. The number of sheep the line carried was 5,527. These came from Menindee. Some were for the local butchers and some for the Adelaide market. There was also a horse or two, and, if we had cattle wagons, there would also be some cattle coming in. The number of passengers carried was 424, made up 200 outward and 224 arriving. The total earnings of the line for the month was £744 17/-".[33]

Fortunately, the March 1919 press article then turned its description to Broken Hill station about which it stated:

> "Tickets, it may be noted, are now available at the station, so that there is no need to go to Railway Town, two miles away from the departure station, to get them. This brings one to the station itself. The installation of the booking hall is not the only evidence of progress. There is a fine long platform built up so that passengers can get into the carriages without climbing steps.[34] On this platform are the principal station buildings, and the first thing that strikes the eye on walking towards these buildings is a row of the usual kind of railway platform seats, along the top rail of which is painted "Broken Hill" in bold letters. … . The backs of the seats are against the walls of the buildings, which include a waiting room for women, a general waiting room into which the booking office opens; parcels rooms, and stationmaster's office. The Menindee station, Mr. Butler said, is also nearing completion".[35]

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[30] *Government Gazette of the State of New South Wales*, 24th January 1919 No.11, p. 468.
[31] Newcastle Morning Herald and Miners' Advocate, 25th January 1919, page 2.
[32] *Government Gazette of the State of New South Wales*, 21st February 1919 No.42, p.
[33] *Barrier Miner*, 15th March 1919, p. 5.
[34] By contrast, the Silverton Tramway station had no platform, making access into and from carriages difficult.
[35] Ibid.

While it appears that the Broken Hill station building may have been completed or nearing completion in March 1919, this was not the case for the construction and erection of the engine shed, locomotive office, store and carriage shed at Broken Hill. Tenders for these structures closed on 16th July 1919 – one day after the official line opening.[36]

AN ABSENCE OF CONSISTENCY ABOUT THE OPENING DATE OF THE LINE

The *Sydney Morning Herald* on 18th July 1919 gave a mixed message about the opening date. While it stated that the opening occurred "yesterday", meaning the 17th July, the article was headed "*Thursday at Broken Hill"*, inferring that the opening was on Wednesday 16th July. It stated that, before that date, passengers travelled on the line at their own risk. A local newspaper, *The Barrier Miner,* also confirmed that the opening date was the 16th July 1919".[37]

For something completely different, the 1919 *Annual Report* of the Railway Commissioner (page 11) stated that "the section from Broken Hill to Menindee has been opened to traffic since the close of the year" (i.e. from 30th June 1919. The distance at the time was 73 miles and 23 chains. Surely that was the end of the confusion! No. The puzzle continued. *Weekly Notice No. 32*, 2-8th September 1919 stated that the Broken Hill- Menindee section opened for traffic on "15th ultimo", meaning 15th August 1919.

So why is the centenary being celebrated on 15th July? The celebration date is based on a statement in the Commissioner's 1920 *Annual Report* (page 2) which indicated that the opening was on 15th July 1919. By the way, the distance in the *Annual Report* was stated as 73 miles and 52 chains, which was inconsistent with the distance provided in the Department's own *Weekly Notice* of 73 miles 23 chains.

Was there any public celebration for the opening ceremony no matter when the opening occurred? Apparently not. Trains were running from at least the middle of 1918, so it was no big deal. Also, Saturday, 19th July 1919, was a public holiday in New South Wales. Substantial celebrations occurred throughout the State, including at Broken Hill, to celebrate the signing of the Treaty of Versailles. That no doubt took public attention away from the railway opening.[38]

WHAT WAS THE DELAY IN CONSTRUCTION OF THE STATION AND THE LINE BETWEEN 1912 AND 1919?

The 1919 station building was an outcome of substantial political and economic turmoil between 1910 and 1919. John Cann became the local Member of Parliament in 1910 and was part of the first Labor Government in NSW. However, Cann received a considerable

[36] *Sydney Morning Herald*, 9th July 1919, p. 9.
[37] *The Barrier Miner*, 16th July 1919, p. 1.
[38] See *Weekly Notice No. 30,* 19-25th July 1919, p. 16.

amount of criticism by Broken Hill residents about the slowness of his action to start and then accelerate the construction of the railway line. The people could not understand why there was a delay, in view of the fact that Cann was the State Treasurer from 1910 to 1914 and was, therefore, in control of the public purse. It seems that even Cann realised that the enormity of expenditure for the project would never be recouped. Moreover, there was a gross shortage of available capital funds on the London money market related to the need to finance World War One operations.

Cann had also been Minister for Mines in 1914 and 1915 and Minister for Public Works in 1915 and 1916. The Government appointed him one of three Railway Commissioners in 1917 but, prior to that, Cann had persuaded the Chief Commissioner for Railways, Tom Johnson, to visit Broken Hill where Johnson told the local community of his support for a link between Condobolin and Broken Hill. The combined effort of Cann and Johnson did result, firstly, in the successful passage of the legislation and, secondly, in the opening of the initial section (Broken Hill to Menindee) of the railway line to Sydney on 15th July 1919. Why was the first section of line opened when it did? You guessed it. It was the usual story of people, politics and money.

While the actual rails and sleepers have been replaced in the years after the line opening, the original 1919 platform building stands as strong evidence to interpret the importance of the political and economic factors during the construction phase. There had been a consistent push for rural railways from 1900 to serve those towns and cities not already enjoying rail access to Sydney. However, the internal Departmental management of the station design process was in chaos after 1910. Example after example of incorrect issue of standard designs became the norm. In 1912, the Railway Commissioner issued new standard designs and a new policy that timber was to be exclusively used in rural areas and brick in the Sydney, Newcastle and the Wollongong areas. This policy was the clearest indication that the NSW Government treated country residents in all rural areas as having a lower social status than the citizens of the large, urban conurbations. Oddly, that's exactly what Broken Hill was – a very large urban conurbation. The only trouble was that it was too far from Sydney and there was very limited scope and hope for closer settlement of rural lands around Broken Hill. Simply put, political leaders in Sydney thought that the railway connection between Broken Hill and Sydney was just a waste of money. Of course, they were correct at the time.

The prototype for the introduction of concrete unit platform buildings was built at Lake Cargelligo in 1918, the year after the line opened to that centre. It was a one-off experiment and the following features were not provided on subsequent examples, including the Broken Hill building: rendered external walls; brick chimney; extension of roof rafters to form a platform awning; gables formed by timber boards; finials on gables; high-level corbels to support the awning braces and six-panel external doors. Photographed by Ray Parr in 1982. Image No. 017540, ARHS Resource Centre.

THE INTRODUCTION OF CONCRETE UNIT CONSTRUCTION

Not only does the 1919 Broken Hill station have high local significance, it has state, national and international engineering significance. In 1909, the standard text on concrete construction was published in the United States of America.[39] However, the large number of concrete buildings that were constructed were of mass concrete, not pre-fabricated units. Pre-cast concrete units were used in England from 1913, including the Midland and Great Northern Joint Railway.[40] Queensland Railways built a single concrete unit station in 1915 but did not build another until 1918. The use of concrete units in Queensland was random and scattered, unlike the case of NSW where virtually every platform building in rural areas was concrete. The New South Wales Railways, as was often the case, had stolen the idea from another Australian railway system.

[39] No author, *Concrete in Railroad Construction*, New York, The Atlas Portland Cement Company, 1909.

[40] S. A. Sharp, The Railway Stations of NSW 1855-1980, unpublished M. Ec. (Hons.) thesis, Faculty of Economics, The University of Sydney, 1982, Vol 5, p. 9,

Why was concrete construction introduced when it was? Learned, Past-President, Graham Harper, wrote that the period was "a state of flux".[41] In describing the time, he cited:

- The labour and finance shortages due to World War One,
- The need to repatriate returned soldiers as quickly as possible,
- The desire to avoid any local fall-out following the Communist Revolutions of 1917,
- The pressure on Sydney suburban rail services and the push to build the Sydney City Circle and the Harbour Bridge,
- The transition to the electrification of the Sydney metropolitan rail services,
- The start of the introduction of automatic signalling,
- The "urgent necessity" to build the metropolitan goods railway system, &
- Changing political priorities between city and country (with the resultant establishment of the Country Party).[42]

There was no end to the constant pressure to construct new rural railway lines. Australian governments were obsessed with the expansion of closer settlement schemes to increase the amount of primary production, even at the expense of per-acre productivity, in order to create a class of rural dwellers who would be classified as yeoman-farmers. All this effort was targeted at two objectives, firstly, increasing the rural population outside Sydney and, secondly, increasing primary products for the Mother Country – Great Britain.

Okay! There was a lot going on but that does not explain why the Department of Railways chose concrete rather than continue with the use of timber for framework and wall cladding. No one really knows why the Department chose to use concrete, apart from an obvious interstate jealousy based on its use in Queensland.

Concrete unit construction had several advantages over timber and all of these combined to provide lower construction costs and longer service life. These were:

- the widespread use of standard plans eliminated the need for the preparation of separate documentation for each job,
- the ability to use some recycled rails to support the base of the structure,
- the need for fewer tradesmen as the post and panel method of construction could utilise a higher percentage of unskilled, lower paid workers,
- the employment of fewer tradesmen reduced not only salary costs but allowances for camping and other expenses because of the need to relocate workers to the building sites,
- the opportunity to introduce specialisation of function and centralisation of the work process, to a large degree, to a select number of railway workshops (this because did not apply to the Broken Hill-Menindee line),
- the design eliminated the need for specialist tradesmen, such as plasterers,
- the availability of cement locally, possibly at a lower cost, rather than import softwoods from overseas.

[41] G. Harper, "Thoughts on Sydney Metro Goods Line Signalling", *Australian Railway History*, October 2016, p. 12.
[42] Ibid., pp. 12 & 13.

There was a negative side to the use of concrete unit construction. So far as construction was concerned, the concrete units were very heavy and awkward to lift and position correctly between posts. Dr Jim Longworth writes that "if a large mass concrete gets hot it stays hot, for a long time. If concrete gets cold, it stays cold, also for a long time". In short, he said the use of concrete had a reputation "for being hot in summer and cold in winter".[43] In essence, they were buggers of places in which to work.

Concrete unit buildings were introduced widely from 1919 because it appears that they combined the ability to deliver low-cost outcomes, in both the short and long-term, in a fairly short construction time without having to rely on intermittent, overseas shipments of softwoods from the Baltic region or North America.

To say that concrete unit platform buildings were plain in design would be an understatement. They were completely void of any decorative element or stylistic feature and appeared what they were – unpretentious, ordinary, functional structures. Nevertheless, rarely did a NSW community complain about a pre-cast concrete building upon line opening. In fact, there was only one place that complained – Coolah in 1920.[44] Even in the case of Broken Hill in 1919, there was no adverse reference in newspapers to the concrete unit building the city received. In fact, there was no criticism on any aspect of the construction and operation. Communities were simply glad to receive a rail connection. For instances, note the conciliatory tone in the following article about rollingstock.

> "At present, the rollingstock at the disposal of officials here is not plentiful or up to date but has served the purpose up to the present. The locomotives are of the old style but are capable of covering the distance from Broken Hill to Menindee at a fair rate …".[45]

While no further concrete unit buildings for staff and passengers were approved and built after 1932, the product continued to be used for engineering structures up until the 1980s, mostly by the Signalling and Telegraph Branch in which they stored electrical relays and other equipment. The very last concrete unit structure appears to be the one at Robertson in about 1985, which is located on the platform and provides an interesting contrast in terms of craftsmanship to the 1932 concrete passenger building at that station.

World War One severely cut the flow of capital funds to the NSW Government. One outcome was the provision of smaller, cheaper timber buildings and, indeed, a design for a timber building was prepared in 1917 for Broken Hill. On 9th November 1917, William Hutchinson, the Engineer-in-Chief for Railway Construction, approved a Block Plan for all buildings between Broken Hill and Menindee inclusive. For all locations other than Broken Hill, he proposed to erect small simple timber structures without platform awnings. These were

[43] J. Longworth, "Sleeping in Concrete", *Australian Railway History*, October 2016, p. 24.
[44] See *Mudgee Guardian and North-Western Representative*, 20th May 1920, p. 27.
[45] *The Barrier Miner*, 7th September 1920. P. 3.

classified by the Department as “P” type, meaning that they were portable – possibly, though not a single “P” type structure built was ever relocated.

For Broken Hill, the Railway Construction Branch realised that a “P” type building would not correctly reflect the status of the city or, more likely, would create a great degree of local hostility to the New South Wales Railways and to New South Wales in general. At least Hutchinson got that right. Instead, Hutchinson approved a timber A4 building that he used elsewhere extensively. The structure that survives at Kendall on the North Coast is an example of the A4 type. The approved “A4” example was not built at Broken Hill and the instance involving Broken Hill was the last occasion when an “A” type standard building was approved for use anywhere in the State.

Another plan was prepared, this time for a concrete unit building of the “Ac4” type. The building plan was not prepared by the Existing Lines Branch, as would normally have been the case, but drawn within the Office of the Signal Engineer. The plan was dated 22nd June 1918 and the drawing was marked “Y9”. What does the letter “Y” mean? That Guru of all things relating to signalling and safeworking, Dr Bob Taaffe, says that it denotes a plan not produced by the staff of the Office of the Signal Engineer.[46] Put bluntly, Bob says it denoted it was a “foreign job”. Now that explanation just muddies everything. Why would the Existing Lines Branch prepare a plan and hand it to the draughtsman in the Signals Branch? It must have had something to do with the fact that it was the Signal Engineer’s staff who possessed the equipment to make concrete units. As to who prepared the plan, only dead people know.

On 27th September 1918 the Signal Engineer’s Office issued a second plan marked “Y16” also for an Ac4 structure. As stated, the reason the Signal Engineer’s Office prepared the drawing related to the development by that Office of the use of concrete unit construction. Hutchinson was naive if he assumed that a concrete unit building would keep the burghers of Broken Hill happy for long. Possibly, he did understand the situation, but he had no choice in view of the inadequate capital funding or his own leadership inadequacies.

What was the difference between the A4 and Ac4 standard structures? The Table below sets out the differences.

TABLE: THE DIFFERENCES BETWEEN THE A4 AND Ac4 STANDARD DESIGNS

ELEMENT	A4	Ac4
Footprint shape	Rectangular	Rectangular
Roof style	Gable	Gable
Roof material	Corrugated iron sheets	Three-ply Adamax on roof “to be solutioned to iron under (asbestos cement) “slates”
Building length	68 feet external	70 feet external
Wall material	Timber	Precast concrete units
Building width	12 feet 8 inches external	12 feet 7 inches external

[46] Email from Bob Taaffe dated 6th March 2019.

ELEMENT	A4	Ac4
Ceiling height	11 feet 6 inches	10 feet 6 inches
Floor material	Timber	Timber floor on concrete slabs
Floor support system	Hardwood	Old railway lines and old point rodding
Heating	Fireplaces with brick chimneys in Station Master's office and ladies' waiting room	Cast iron stoves in Station Master's office and ladies' waiting room
Fireplace venting system	Brick chimneys through roof ridge	Metal flues through roof ridge
Designation and layout of rooms from Sydney end	Ladies' waiting room and toilet; open-fronted general waiting room; Station Masters office & out of room	Open-fronted general waiting room; Station Officer's room; Store & ladies' waiting room and toilet
Width of platform awning	9 feet	9 feet
Method of support for platform awning	Inverted "U"-shaped steel brackets	Timber braces
No. of rain water tanks	Two. Located one at each end of building	Two. Located one at each end of building
Location of male toilet	Detached, off-platform	Detached, off-platform
Provision of top and side covers over rain water tanks	Yes.	No.

The above Table indicates that, apart from the building materials, there were minimal differences between the standard "A4" and "Ac4" designs intended for Broken Hill. It could be assumed that the people of Broken Hill would have just as quickly protested about and A4 design structure as about the Ac4 standard type.

The proposed structure was to be of pre-cast, concrete unit construction and Broken Hill became one of only seven buildings erected to that plan classification.[47] The structure at Broken Hill was the fourth station opened of 148 other stations where concrete units were used up to 1932. However, it may well have been the first one built or intended to be built.

The other early concrete unit building was erected at Lake Cargelligo. It too has no extant pre-construction plan and the now deceased Railway Archives Officer, John Forsyth, told the authors that the Lake Cargelligo building post-dated the opening of the line in 1917. That was correct. Research has revealed that the concrete unit building at Lake Cargelligo was constructed in the middle of 1918. Also, the Lake Cargelligo building was non-standard in design, as was the Broken Hill example. Both buildings shared other atypical, pre-standard features. Firstly, the design of the individual concrete units was different to subsequent

[47] The other Ac4 Type structures built were at Macksville, Bombala, Ballina, Eugowra, Rankins Springs and Hillston. Only those at Macksville and Bombala survive.

examples, with the building at Broken Hill having a top profile that was never used subsequently. Tragically, the building at Lake Cargelligo has been demolished, leaving the structure at Broken Hill as the older of the two extant concrete unit structures in NSW and, thereby, substantially increasing the technical importance of its cultural significance.

The precast concrete units came in two sizes. Apart from a few exceptions – including Broken Hill, the larger units had flush joints between the units. The smaller units had a profile along the top which mimicked weatherboards. While the large units were initially used almost exclusively, after a few years the pattern of the application became cloudy and it is difficult to understand why at some locations larger units were applied and, on other occasions, smaller units were used. In the second half of the 1920s, the pattern stabilised and smaller units were exclusively used for station buildings and larger concrete units were engaged for platform walls to replace timber construction.

The large-sized concrete units forming the walls featured a profile at their top edge that was not repeated on other concrete station buildings. Later units of this large size had flush joints. This type of concrete construction is often referred to as post-and-panel work. Note the four-panel door marking the pedestrian entry, a door style that was different to the prototype at Lake Cargelligo. There is a plinth at the bottom of the wall which has been painted a different colour. The use of plinths was questionable on a building where expenditure was minimised. They played no functional role. Image by Gary Hughes on 15th October 2010.

The 1919 building's special place in the history of NSW station design is further reflected in the manner of its construction. It, along with other station buildings on the line to Menindee and other concrete railway structures in Broken Hill, were the only examples which were constructed from moulds on-site. The moulds were transported to Broken Hill by ship to Adelaide and then by rail. The moulds were retained in Broken Hill and used for the next decade, including the building extensions in 1928. All other pre-cast concrete buildings used components cast in the (mostly Sydney) railway workshops and railed throughout the State to the construction sites. There is a very high level of craftsmanship in the concrete work of

the Broken Hill building, which is reflected in the absence of air-holes in the units and the absence of water ingress after nearly a century of service. The standard concrete units used in the building are 1,090-1,100 millimetres (42.9-43.3 inches) long by 387 millimetres (15.25 inches) high.[48]

It has already been suggested that John Cann, although he was a resident of Broken Hill and held various ministerial posts between 1910 and 1916, delayed the construction of the line between Broken Hill and Menindee because he realised that there was no way the connection with Sydney would cover its construction and ongoing costs, let alone make a profit. It is hard to believe that, when he was a Railway Commissioner from 1917, he did not intervene in the decision to provide a utilitarian and unattractive concrete platform building. Why not step forward and direct that a building more appropriate status of the city be provided? After all, he was one of the very top bureaucrats in a place of power. Perhaps, just as he did not expedite construction of the line when he was in a position to do so as State Treasurer, he did not intervene and direct a more appropriate building be provided because he knew in his heart that a considerable amount of public funds would be expended in the knowledge that such construction and subsequent operation would be highly unprofitable?

For the line between Menindee and Broken Hill, three standard plans involving concrete unit construction were issued. All had been prepared in the Office of the Signal Engineer. The codes and details of these plans are shown in the Table below:

TABLE: DETAILS RELATING TO STANDARD PLANS USED FOR PLATFORM BUILDINGS – MENINDEE-BROKEN HILL 1918

PLAN CODE	PLAN DATE	INTENDED LOCATION/S	NUMBER OF ROOMS
Y7	14th June 1918	The Gorge, Mount Gipps and Box Tank – without platform awnings	One
Y8	8th June 1918	Menindee, with platform awning (but not provided until 1923)	Three
Y9	22nd June and re-issued 27th September 1918	Broken Hill with platform awning	Four

PLATFORM CONSTRUCTION - 1919 AND 1927

[48] Measurements by Gary Hughes conveyed in an email from Paul Horder dated 2nd March 2019.

This image shows the faint diagonal outline of the edge of the ramp at the western end that marks the end of the 1919 platform and the start of the 1927 extension. The mass concrete wall was poured off formwork and was experimental when built in 1919. Why punish poor Broken Hill further after the insult of a disgraceful platform building? The unusual profile under the coping was never repeated after 1919. Image by Gary Hughes on 15th October 2010.

Workmen completed the concrete retaining wall for the passengers platforms in October 1916. The wall was stated as being "about 250 feet long" and located about 100 yards to the northern side of Iodide Street, and between Crystal Street and Carbon Street.[49]

The cultural significance of the 1919 building is further shown in the manner of construction of the platform wall and coping. The platform dates from 1919 and 1927 and was formed by packed earth. For the wall, the usual brick or timber was not employed. Neither did the NSW Railways use pre-cast concrete units. Rather, the decision was made to build a wall and coping from mass concrete off timber formwork. The first time the NSW Railways used the combination of concrete units for a building and mass concrete for the platform wall was for the Broken Hill-Menindee section of line. The Broken Hill station is now the only one of three locations where examples of both styles of concrete usage survive.[50] In October 1916, the local press reported:

> "The workmen engaged on the railway stations and good-sheds site have completed the concrete retaining wall for the passengers' platforms. The wall is about 250ft. long and has been constructed about 100 yards to the northern side of Iodide Street, and between Crystal Street and Carbon Street. The entrance to the passengers' platform will be by way of Oxide Street, and thence along Carbon Street".[51]

[49] *Barrier Miner*, 9th October 1916, p. 2.
[50] In 1892 and at a few isolated subsequent locations, concrete rendering of platform walls occurred. Daroobalgie and Bangalow are examples. Mangoplah and Mount Murray stations had mass concrete platform walls and concrete unit buildings
[51] *Barrier Miner*, 9th October 1916, p. 2.

The three-rail fence at rear of platform was 'not to be built at present' because the materials were not at hand.

Traffic Branch *Circular No. 668* of 1927 states that the platform length was 385 feet in readiness for the arrival of the first through passenger train. The platform was recorded as being 400 feet, according to the 1929 *Local Appendix*.[52] The discrepancy is typical of the NSW Railway's informal culture which encouraged what may be called substantial individual expression over consistency of presentation.

As far as is known, there was ever only one seat on the platform on which people could sit.[53]

What do the concrete units look like on the inside? Just the same as the external surface, with the unusual profile of the top edge. What about the pink colour? Should one expect to see natural colours, such as browns and greens? It is all about time. From 1950, the NSW Railways started to change its building colour policy and it was Broken Hill's turn in 1954. The pastel pink was introduced widely from the 1950s and was accompanied by pastel green and pastel blue. Note the plinth at the base of the wall. Image by Gary Hughes on 6th December 2010.

WHAT WAS THE STIMULUS FOR THE COMPLETION OF THE LINE BETWEEN 1919 AND 1927?

In the 1920s, the completion of the railway line was a hot potato issue for Broken Hill residents. State general elections were held in 1920 and the sitting members were accused at the time of doing nothing about the railway.[54] The Parliamentary Opposition gave promises. Alfred Mason, a resident, wrote a letter to the *Barrier Miner* newspaper in 1921 saying that the New South Wales Government "can only give us what we have had since 1890 (from the

[52] John Forsyth, *Station Information A to F*, unpublished manuscript, State Rail Authority 1997, p. 21 states that the platform was extended in January 1929. There is evidence that it was extended in 1927 and that there was a further extension in 1929.

[53] A photograph in ARHS *Bulletin* p. 176 taken in 1957 shows only one seat.

[54] *Barrier Miner*, 18th March 1920, p. 2.

late Sir Henry Parkes); that is, promises". He believed that the Broken Hill Railway League, which had been established many years before the opening of the section to Menindee, should rename itself as a separation league. At the time, Mason believed that the people of Broken Hill did not have the slightest chance to get a railway linking Sydney and that the city would be better off being a part of South Australia.[55]

The then Minister for Works and Railways, Richard Ball, stated in 1922 that "the reason why no money would be made available for construction of the railway from Broken Hill to Condobolin this year was that the Railway Commissioners were desirous of completing the line once they started it and that, as sufficient funds could not be made available for that purpose this year, it was decided to wait till next year." [56] Completion "next year" turned out to be not 1923, not 1924, not 1925, not 1926 but 1927. Do we really believe Ball, the politician, shifting the blame to James Fraser, the Chief Commissioner? No! After all, it was the politicians who decided on the quantum of funds for the various projects.

The Department of Public Works announced in 1923 that completion of the railway line would take another five years.[57] One newspaper said that the announcement was "ridiculous" and the remark infuriated most people in the city and simply stimulated a more aggressive campaign to press for the completion of the railway line well before the announced five years.

The British so-called "railway experts", Sir Sam Fay and Sir Vincent Raven, were in Australia conducting a comprehensive review of the New South Wales Railways. They visited Broken Hill in June 1924 but proved to be of no benefit in accelerating the completion of the railway line.[58] In fact, just after their visit, rumours circulated in the city that the construction works would be shut down when the railway reached Ivanhoe.[59] It had to take written advice from the Minister for Railways, Richard Ball, to put an end to the local anger about the rumour.

What occurred to get the line completed earlier than the estimate of 1928? The Railway Department had completed the section to near Trida in 1919; it finished the section to Ivanhoe in 1925 and to Menindee in 1927. Note that the three-stage construction schedule was completely contrary to Ball's rubbish about doing the work as a single-stage project. Academic, Bob Solomon, argues that the delay was all about the antics of key people. For a start, the New South Wales Government had appointed John Cann, who was the then Parliamentary Member for Sturt, a Railway Commissioner in 1917. Clearly, the people of Broken Hill then had a person in a very powerful position. More significant was the election of Percy Brookfield as the new Member for Sturt following the departure of Cann. Brookfield resigned from the Labor Party in 1919 and, in the 1920 New South Wales general elections, stood as a member of the Industrial Socialist Labor Party. The Labor Party Premier, John Storey, held 43 seats after the 1920 elections as did the opposition parties. Brookfield held

[55] *Barrier Miner*, 2nd July 1921, p. 1.
[56] *Barrier Miner*, 2nd November 1922, p. 1.

[57] *Barrier Miner*, 9th March 1923, p. 2.
[58] *Barrier Miner*, 8th June 1924, p. 1.
[59] Ibid., 19th July 1924, p. 5.

the balance of power – a mighty strong position from which to argue for the construction of a railway line to his home city. Solomon wrote that "doubtless the continuing political agitation of many years and Brookfield's balance of power in the New South Wales Parliament in 1920 finally moved the wheels of administration and public works".[60] Although Brookfield was shot and killed in 1921, it would seem that Storey continued to support the construction of the line between Trida and Menindee. If it were not for Brookfield and Cann, the railway opening may have taken much longer – or not at all.

The one major component that held up construction for possibly the longest time was the supply of parts for the dual road/rail, bascule bridge over the Darling River at Menindee.[61] Had it not been for that delay, the Government policy was to open the line by 31st December 1926.[62]

PROPOSED BUILDING ENLARGEMENT TO CO-INCIDE WITH THE 1927 OPENING OF THE LINE TO SYDNEY

By 1927, Broken Hill residents had been using for the previous eight years a "sturdy but ungraceful building to say the least - a cramped concrete unit station building totally unsuited for such a desert climate".[63]

The inauguration of the public train service from Sydney to Broken Hill on 7th November 1927 was reported as not having been "specially marked in any way".[64] Similarly, there was no official celebration at Broken Hill, though it was reported that a large crowd was on hand to witness the arrival of the first train from Sydney.[65]

What was done to the Broken Hill station building to prepare for the opening of the line through to Sydney? Nothing is the answer. The Department had also announced in July 1926 its intention to build and open a Departmental refreshment room at Parkes prior to the opening.[66] That also did not occur.

A plan had been prepared in 1927 to relocate the ladies' waiting room and toilet to the western end of the existing concrete unit building at Broken Hill. The work did not proceed in 1927 but Robert Rankin, the Engineer-in-Chief for Existing Lines, approved on 12th July 1928 the additions in conjunction with other work. At the eastern end of the same building, the booking office was extended and a new parcels office built in 1928. Additionally, an off-platform, male toilet block was erected with a joint lamp room featuring a bizarre concrete roof – but added to the technical significance of the Broken Hill station structure as a whole. For this station, the precast concrete units for the work did not come from Sydney but were made locally using the 'forms' that had been used for the construction of the concrete unit buildings between

[60] R. Solomon, *The Richest Load – Broken Hill 1883 – 1988*, Sydney, Hale and Iremonger, 1988, p. 364.
[61] *Lithgow Mercury*, 9th January 1925, p. 4.
[62] *Western Champion*, 8th October 1925, p. 10.
[63] No author, *Silver City Explorer*, Canberra, ARHS, 1992, p. 64.
[64] *The Muswellbrook Chronicle*, 8th November 1927, p. 1.
[65] K. McCarthy, *Steaming Down Argent Street*, Sutherland, 1983, Sydney Tramway Museum, p. 61.
[66] *Evening News*, 4th October 1927, p. 11.

Menindee and Broken Hill inclusive in 1919.[67] At its peak, the Broken Hill building was 113 feet 2 inches long.

The proposed works at Broken Hill did not placate the local people or the press in 1927 as they considered that the 1919 station platform was too narrow, the building was uncomely and on the wrong side of the tracks and in the wrong part of the city. Additionally, the lighting was poor, being described as belonging to "a long past age" with kerosene lamps on the platform but no approach lighting. In fact, the local press did not support improvements to the existing station and stated that "it is to be hoped that nothing will be done to perpetuate the passenger station in the present unsuitable position, so far away from the centre of the town and so inconvenient in every way and so inferior to the station for the Adelaide trains."[68] What the local community did want was a station somewhere in the vicinity of the new (existing) station that was opened in 1957 near the centre of town.

Although they did not know it at the time, the residents of Broken Hill had an ally in the form of James Fraser, the Railway Commissioner, who had hinted at political interference by the Bavin conservative government in 1928 as he had hinted similarly in 1927. Fraser was an advocate of interstate gauge unification – something that would have encouraged the construction of a single, central station at Broken Hill. Fraser was quoted as saying that "he certainly favoured the construction of the broad gauge line from Broken Hill, but other people held different opinions."[69]

The railway line between Ivanhoe and Broken Hill opened on 7th November 1927, but work had not started on the refreshment room at Parkes. One week later, it was reported in the local press that a start had been made and that travellers were looking forward to eating their meals in a building rather than the existing "large canvas marquee."[70] The opening of the railway line and the embarrassment of their broken promise to have it ready for the Broken Hill line opening might have prompted the Commissioners into immediate action. Luckily for the people travelling on the Broken Hill Expresses between Sydney and Broken Hill, they were able to have the benefit of the first on-train dining car, thus mitigating the need for the refreshment room at Parkes for those passengers. However, there were still a lot of travellers from Condobolin, Tottenham, Peak Hill, Forbes and elsewhere who needed consideration.

The opening of the line to Sydney occurred "after 40 years of agitation", according to local historian, R. H. B. Kearns.[71]

Prior to the opening of the line to Sydney in 1927, the designation of the rooms on the Broken Hill structure from the Sydney end were:

- Office for Track Sub-inspector,

[67] Email from Dr. R. T. Taaffe dated 20th April, 2011.
[68] *Barrier Miner*, 5th January, 1928, p. 3.
[69] Ibid. This reference to "broad gauge" did not mean five feet three inches but was rather a reference to the gauge being wider than the three feet six inches of the Silverton Tramway.
[70] *Sydney Morning Herald*, 15th November, 1927, p. 12.
[71] R. H. B. Kearns*, Broken Hill 1915-1939,* Broken Hill Historical Society, 1975, p. 42.

- Open-fronted general waiting room,
- Station Master's office,
- Store, &
- Ladies' waiting room and toilet.

After the enlargement of the building, the designation of rooms from the Sydney end were:

- Parcels office,
- Booking office,
- General waiting room,
- Clerks' office,
- Office for Assistant District Superintendent,
- Store, &
- Ladies' waiting room and toilet.

The male toilet was a primitive, detached humpy at the Sydney end but to the rear of the main platform building.

According to the historian of railway concrete structures, Paul Horder, Merriwagga and Broken Hill were the only two concrete unit buildings to have additions at both ends of the original building.[72] From the available evidence, both additions in relation to the Broken Hill building were undertaken simultaneously in 1928 despite the units being of dissimilar dimensions.

CRITICISM OF THE 1919 BUILDING, RUMOURS AND THE REALITY

The year, 1928, started with an editorial in one of the local newspapers condemning the railway terminus. The complaints were many. Road access to the station was dangerous, especially at night with an absence of lighting. The station was on the wrong side of the line, requiring people to cross the running line. The terminus was "most awkwardly placed" away from the centre of town. The station was lit by kerosene lamps despite the fact that the electricity supply surrounded the site. Even the puny station of Cockburn on the South Australian border was lit by electricity. Most importantly, the station building did not reflect the status of the city and the newspaper said that the people needed a structure "equal to the station for the Adelaide train" and "less like a little wayside village station".[73]

In February 1928, the Orange District Superintendent was in Broken Hill to answer rumours that a new station would be built further westward in Crystal Street so that it would be more central to the city. The Superintendent said that would not be the case and all that was planned was the provision of a new parcels office at the eastern end of the existing building and a new ladies' waiting room at the western end of the building. He said that the existing ladies' waiting room was being used as his office.[74] That was not the end of the story and,

[72] Email from Paul Horder dated 5th November 2012. Interestingly, the structure at Merriwagga was lengthened in 1926 – only one year before approval was given for the building at Broken Hill to be lengthened.
[73] *Barrier Miner*, 5th January 1928, p. 3.
[74] *Barrier Miner*, 25th February 1928, p. 2.

when the Western Area Commissioner and the District Superintendent visited Broken Hill in March 1928 they replied, when asked whether the city would get a new railway station, that it was the intention of the Commissioners to provide a new permanent railway station. Local officials desired the new station to be level with Sulphide or Chloride Streets, but the Area Commissioner said that it was proposed to build a new station on the site of the 1919 station building.[75] At last, there was a public announcement that a new station would be provided. As time tells us, that announcement was just the discharge of bureaucratic hot air to stop the frozen reception the officials received.

Pro Bono Publico, which was a pen name for an astute observer of all-things railway, wrote a lively letter to one of the Broken Hill newspapers in February 1928 praising the newly-introduced, Broken Hill Express but postulated the notion that their local station did not match the comforts of the train.[76] The writer did not know or did not believe that the Department had indicated that it would not build a new station. He wrote:

> "After a long and weary wait, the line to Sydney has at last been opened, and I think I express the opinion of the majority when I say that the train has fulfilled all expectations. So far as appointments and fittings are concerned, it is probably the most luxurious in the State. But much could be done in the way of improving the station at Crystal Street. I would suggest that the station is a station, and not an "old curiosity shop" as the archaic kerosene lamps would seem to indicate. It is really absurd when electric lighting is available within a stone's throw, either from the town supply or possibly from the mines.
>
> Perhaps the station as it stands is only a temporary institution, to meet the demands of the immediate present. Even so, it should not be difficult to arrange a more efficient and prepossessing lighting system. Several times I have had occasion to post a letter in the late fee bag. Could anything be done to make this bag more convenient to the general public? As things are at present, it is necessary to buy a platform ticket. One does not begrudge the twopence to the State Government, but it is not a particularly pleasant task to elbow one's way through a crowd to purchase the privilege of groping in the gloom on the station platform. It is the little things that count in the formation of impressions, and the station itself is ill in keeping with the comfortable and well-appointed trains".[77]

In the Legislative Assembly on 17th October 1928, the local Member of Parliament for Sturt, Edward Horsington asked the then Minister for Railways if he was aware that the railway station at Broken Hill consisted "of what might be described as a couple of one-roomed shanties, that there is really no accommodation for travellers and whether anything is being done to provide decent accommodation at this station".[78] That request actually resulted in action for once.

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[75] *Barrier Miner*, 10th March 1928, p. 6.
[76] Interestingly, the coal for the railway used came from Gunnedah Colliery. See *Barrier Miner*, 30th January 1928, p. 3.
[77] *Barrier Miner*, 24th February 1928, p. 2.
[78] Barrier Miner, 27th October 1928, p. 2. Horsington was the Member for Sturt between 1922 and 1947.

At the start of November 1928, construction work was underway and a new parcels office was reported as being completed "except for painting and the erection of fittings". It was expected that it would be ready for use in from 10 to 12 days. The foundation of the new ladies' waiting room had been built.[79] A new general waiting room was also proposed to be built.[80] The contractor for the work was to start on the project after he had completed a contract at Narromine.[81]

In December 1928, the ladies' waiting room had almost been completed and it was stated that the work "will be ready in a day or two. The widening of the platform was also underway and the rear fence was being set back 10 feet.[82] During the same month, the station was lit by electricity. There were five lights under the station verandah and four more are placed along the platform. A lamp was also placed at the entrance to the station yard. As well, all rooms in the building were lit by electricity.[83]

The Department published a photograph in the January 1929 issue of its house journal, *The Staff*, which revealed that the walls of the extension on the Sydney end had been erected, the asbestos cement sheeting had been fitted to the gable, but the roof extension and platform awning at the Sydney end were yet to be covered with a material.[84]

Believe it or not, 6,000 residents squeezed onto the platform in July 1937 to witness the arrival of the first Silver City Comet.[85]

THE IMPACT OF WORLD WAR TWO

A deputation from the Broken Hill City Council in Broken Hill interviewed the Commissioner in September 1941 with what it regarded as a minor matter, asking that:

> "an improvement In the Crystal Street station yard and parking area and a new road to the station from where the bitumen ends in Crystal Street. These are mild and very justified requests. The Railway Department's own business is concerned and the present inconvenience cannot be excused. In a city of the importance of Broken Hill, it is quite ridiculous that the requests need to be presented at all. There is not much expense involved, and surely the small amount that is required be provided. It is a direct responsibility of the Railways Department and the need for the alterations need not be stressed, as said by Mr. Hartigan. Frank in his admission of that point, the only difficulty in the way is that of finance".[86]

The old chestnut was played to the Commissioner by the Broken Hill deputation, claiming that the negative response was due to the location of Broken Hill – being so far away from

[79] *Barrier Miner*, 2nd November 1928, p. 1.
[80] Ibid., 12th October 1928, p. 2.
[81] Ibid., 5th September 1928, p. 2.
[82] *Barrier Miner*, 5th December 1928, p. 2.
[83] *Barrier Miner*, 15th December 1928, p. 1.
[84] *The Staff*, 24th January 1929, p. 8.
[85] R. H. B. Kearns, *Broken Hill 1915-1939*, Broken Hill Historical Society, 1975, p. 65.
[86] *Barrier Daily Truth*, 17th September 1941, page 2.

Sydney and more oriented towards South Australia. Additionally, and, once again, the local community was also aware of the buoyant financial situation of the Railway Department, stating:

> "But is the Department in such a state that it cannot provide for these admittedly necessary alterations, that would cost so little and mean so much? We can hardly credit that. We could not believe that, in similar circumstances, any metropolitan station yard and approaches could be ignored because of lack of cash. We would be more inclined to believe that prompt action would be taken in the case of any station on the other side of the State being in so much need of improvements. Mr. Hartigan may think this unfair, but we really believe that on serious contemplation he would agree with us.[87] The road is used only for the business of the Railway Department. It is not used by any private company or public body for any other business. It is a real station approach, and it is surely up to the Department to put it into a satisfactory condition. The parking area is entirely inadequate and inconvenient. The deputation had no difficulty in convincing Mr. Hartigan of the soundness of their case and logic of their claim and, in spite of all he said about the financial situation, it is felt, as it is hoped, that he will find ways and means of doing these essential jobs.[88]

Commissioner Hartigan was telling the local officials a lie. The Department was experiencing a series of financial surpluses during the War and, contrary to what he said, money was not a problem. The City Council may have been upset if it had known that, only a couple of days later, the Railway Department had stitched up a deal with Taree Municipal Council to supply earthenware drainage pipes free of charge to Council to allow it to expand the parking area in front of Taree station.[89]

The most unusual scene at any railway station during 1943 was at Broken Hill where people, waiting for the ticket office window to open, were sleeping on the platform in order to obtain a seat on the Christmas special train to Sydney. This was the first time that miners obtained three weeks annual holidays. The press described the situation in the following way:

> "Local newspapers have attacked the "deplorable spectacle" of crowds waiting to book seats. The railway station looked like temporary shelters for refugees from bombed cities. Makeshift beds have been set up on the platform. Some people are sleeping on the bare earth. Hampers and suitcases of food, thermos flasks and billies of tea are brought to the stations by relatives of those waiting. There are no refreshment rooms at the stations. Barrowmen are doing a big trade supplying food, cool drinks and ice cream. Community singing helps to break the monotony of the waiting. Card and dart games are played during the day and at night by those fortunate enough to have electric torches. People in the queues have been given numbers. Each hour the roll is called and those who fail to answer lose their positions. Members of families are taking turn to hold places in the queues. Mothers who have slept the night at the station are

[87] *Barrier Daily Truth*, 17th September 1941, page 2.
[88] Ibid.
[89] *Northern Champion*, 20th September 1941, p. 2.

> relieved in the morning by their children so they can go home and cook breakfast. Men working night shift are holding places for friends on day shift, and vice versa. Many cases of hardship have been reported, but the sufferers have been told nothing can be done to help them".[90]

State politicians would have been aware of the press report in 1943 in which the Commissioner stated that there would be a need to provide a high level of additional capital funding for post war reconstruction, if modern facilities were desired. As time now tells us, such additional, sufficient funding was never made available by the State Government to upgrade station buildings and other fixed assets used by passengers. Possibly it was the strength of the anti-Labor support for Hartigan that stimulated the Government to take revenge by refusing to provide sufficient capital money for post war reconstruction in relation to station structures. The State Labor Government made no further attempt to bring the Commissioner's position under direct ministerial control while Hartigan was in office. Who were the winners and losers in this political tussle? It was the Labor Government which continued to provide legislative and other support for members of the various railway unions. The unionists repaid the Government by electing the Labor Party into office at every election until 1965. The losers were the train travellers and the country cities and towns. There was never enough money to provide sufficient funding for modest upgrading, let alone new structures. Only one new, replacement building at a country station was built between 1943 and 1980. It was located at Broken Hill in 1957, which was the location of the residence of the then Minister for Transport.

Edward Horsington, the Member of Parliament for the electorate of Sturt, described the station in 1944 at Broken Hill as "probably the worst station in any large town in the State".[91] The Minister for Transport, Maurice O'Sullivan, replied that "I know that, after the War, a number of the railway stations are to be renovated or rebuilt. This is why the Commissioner has refrained from spending money on some of the railway stations, but I don't know about Broken Hill". The 1919 concrete building at Broken Hill would be replaced, but not because the Commissioner thought the suggestion had merit. Three events would contribute to the approval of a new station in 1955, these being a Commonwealth Labor Government investigation into the establishment of a uniform rail gauge across Australia, the happenchance of the State Member of Parliament for Sturt becoming Minister for Transport and the Queen's visit in 1954.

In 1944, the Chifley Labor Government appointed Harold Clapp to "consider the practicality and desirability of unifying the railway gauges (in Australia)".[92] There was general community awareness in 1944 of the investigation into a standard gauge, trans-Australia railway line. This excited an organisation in Broken Hill called the Barrier District Assembly of the Australian Labor Party, which held the view that the existing, two stations at Crystal and Sulphide Street would be re-placed by a new "Central station". The Assembly took up the

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[90] *Daily Telegraph*, 5th December 1943, p. 3.
[91] *Barrier Daily Truth*, 22nd October 1944, p. 3.
[92] E. Harding, *Uniform Railway Gauge*, Melbourne, Lothian Publishing Company, 1958, p. 80. Clapp submitted his report in March 1945.

matter with the New South Wales Commissioner for Railways, who reportedly advised that "inquiries are being made into the standardisation of railway lines, and that in connection with this it was likely that a Central station would be built at Broken Hill".[93] Making such promises enabled the New South Wales Department of Railways to avoid making any improvements to the 1919-built concrete unit station. The Assembly decided to ask the community for suggestions for the best site for a Central railway station. It would take another 11 years before approval would be given for the construction of a new station in a new location to serve New South Wales trains. It would take until 1970 before there was only one operational station in Broken Hill to serve the trans-Australia line.

The one improvement to Broken Hill station that was undertaken in December 1944 was the commitment to asphalting of the approach to the station, which was estimated at £1,500. The press called the location "a bottleneck". Although the road was on railway property, the Department insisted that the Broken Hill City Council be responsible for all future maintenance.[94] At virtually every other station throughout the State the Railway Department would asphalt the station approach but expect the relevant local government authority to maintain the facility into the future. It appears that Broken Hill Council did agree to that condition. What was odd about the commitment to undertake the expenditure was the fact that the Department had declined in April of that year to undertake any improvements to the 1919 station because of the likelihood of a new site being selected for the trans-Australia standard gauge line.[95]

Community requests in 1944 involving new stations for Broken Hill, Grafton, Kyogle and Dunedoo were rejected. Similarly, the request for improved lighting at Cumnock, a hand-rail for the steps at Richmond and loudspeakers at Granville were dismissed. The communities at those centres were aware that the Department of Railways was in a sound financial position, which would enable it to construct replacement facilities or improvements. In a way, the Department's sound financial management became a problem for itself as it had no genuine excuse to reject requests for new station buildings. Keeping in mind the wide range of other engineering projects underway, there was little truth in the often-used excuse that there were manpower and material shortages. The Department simply spent its money based on its own priorities and rejected requests from the key public authorities in the local community.

The only aspect of Clapp's report affecting New South Wales Government was the conversion of the 35 miles of line between Broken Hill and Cockburn on the South Australian border.[96] That agreement took over 20 years to implement mainly because the New South Wales Government failed to ratify the 1946 proposed agreement between the Commonwealth and states relating to gauge standardisation.

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[93] *Barrier Miner*, 21 November 1944, p. 5.
[94] *Barrier Miner*, 15 December 1944, p. 5.
[95] *Barrier Daily Truth*, 4th April 1944, p. 2.
[96] G. Webb, *The Australian Government Railways Since Clapp*, paper presented at the Australian and New Zealand Railway Commissioners' Conference, Hobart, 1974, p. 10.

It was not only the Labor Party that opposed gauge standardisation in New South Wales. The Country Party argued that several branch lines should be built before standardisation were considered, including the line from Inverell to Glen Innes and across to the coast to a new deep-sea port, as well as a connection between Murwillumbah and Tweed Heads and, finally, the completion of the Sandy Hollow-Maryvale line.[97]

So, the Clapp report went nowhere but, more importantly, the official State Government view was that railways were to play a relatively less important role than roads in the post war reconstruction period. Why then was Commissioner Hartigan so optimistic about the desire to rebuild a number of country stations after 1945? In 1945, he had no evidence at that time that the State Government would not provide adequate capital funding.

There were two issues that angered the Barrier Industrial Council at Broken Hill. The first matter was the need for the installation of public telephones at the Crystal Street and Sulphide Street stations. The Superintendent of the Telephone Branch of the Post Master General's Department informed the Council that it would not provide telephones at that time, but the matter would be considered "in the Department's post-war plans". Alderman Cherry said that it was "disgusting" that the town had to wait until after the war to obtain the telephones at the stations. Alderman Mayson added that at any fair-sized town's railway station and hotel would have telephones, even at stations in small towns.[98] The second issue was the insistence by the New South Wales Railway Department that passengers transferring between the two stations were responsible for the conveyance of their luggage from one station to the other. The City Council believed that it should be the responsibility of the Railway Department to transfer the luggage.[99] Nothing occurred.

There is an informative article in the ARHS *Bulletin* of May 2003 in which Ernie Sinclair, who was an Assistant Station Master at the time, wrote about his working life at Broken Hill between 1942 and 1945. One of the jobs he undertook was that of the Priority Officer, a position which involved establishing whether a prospective traveller met the essential criteria during the War for interstate travel.[100]

POST-1945 CHANGES

A committee of government officials recommended to State Cabinet in 1948 the opposition to the participation of New South the Wales in the standardisation of railway gauge scheme. Cabinet adopted the advice. This followed a recommendation by Harold Clapp in his 1945

[97] *Narrandera Argus and Riverina Advertiser,* 7th August 1945, p. 4.
[98] *Barrier Truth*, 29th June 1945, p. 4.
[99] Ibid.
[100] E. Sinclair, "Railway Stories", *Bulletin*, May 2003, pp. 175-177.

report to the Commonwealth Government. One correspondent classified the action as "a bewildering change of policy from that of the (previous) McKell State Government".[101]

There was widespread community support in 1948 in rural areas for the opposition to interstate gauge standardisation because of the huge cost and because rural interests in New South Wales could not see how it would be of any benefit to them. The only location which supported interstate gauge unification was Broken Hill. The people in that city were sick and tired of having to transfer between the New South Wales railway station in Crystal Street and the Silverton Tramway station in Sulphide Street. Not only did the Broken Hill city-folk dream of the idea of a single, centrally-located railway station, Clapp's recommendation would have meant the provision of a modern station compared to the 1919-built, unattractive, uninviting and undesirable concrete unit building that served New South Wales trains. Their dream came true in 1957.

Mineworkers at Broken Hill in 1948 requested the establishment of a refreshment room in that city. The Minister for Transport replied to the local Member of Parliament that he would personally take up the matter with the Commissioner.[102] Nothing more was heard about the topic.

A reply in 1949 from the Acting Minister for Transport, Billy Sheahan, was received by the Barrier District Assembly of the Australian Labor Party. It was in response to the Assembly's request for the construction of a new railway station at Broken Hill. Ever since the release of the report by Harold Clapp in 1945 recommending interstate track gauge unification, the people of Broken Hill had maintained sustained pressure on the New South Wales Government as they considered the introduction of a uniform track gauge through their city would mean the end of the existence of the existing two stations, which involved a long walk for travellers between the standard gauge station in Crystal Street and the narrow gauge station in Sulphide Street. The City of Broken Hill was the only urban Centre in New South Wales to support track gauge uniformity. This was still a contentious issue in 1948 during which time the former Chief Electrical Engineer, W. H. Myers, spoke against Clapp's recommendations, saying "the cost of £200 million is the most hideous public scandal I have ever heard of and is a waste of public money".[103] Myers had his own agenda and was desirous of seeing the various trunk lines radiating from Sydney electrified – an unfulfilled commitment that had been made by the then New South Wales Cabinet on 12th January 1937.[104]

The Commissioner in 1949 once again stated that the existing railway station at Broken Hill was considered "to reasonably meet requirements, and the expenditure involved in providing a new building would not be justified at the present time. The Commissioner has again pointed out that, even if the circumstances warranted the erection of new premises, it would

[101] *Sydney Morning Herald*, 25th May 1948, p. 2.
[102] *Barrier Daily Truth*, 15th March 1948, p. 2.
[103] *Illawarra Mercury*, 27th January 1949, p. 1. Myers had held office for 21 years and had retired on 1st March 1946. The Stevens Government had made a commitment on 1st January 1939 to start electrification, but no physical work commenced.
[104] Ibid

not be practicable to take any action as there is still an acute shortage of manpower and materials".[105] That response was based on a lie. The Railway Commissioner had no intention of rebuilding any station as such action would divert money away from the urgent need to rehabilitate tracks and purchase new locomotives and rollingstock.

The year, 1952, started with the battle of correspondence between Broken Hill City Council and the Minister for Transport, Billy Sheahan, about railway services to and from the city. Aldermen claimed that the Transport Minister "did not suitably answer earlier requests for improvements". Sheahan denied that Broken Hill had been neglected and maintained that the service between Broken Hill and Parkes was satisfactory. Complaints centred, firstly, on the inability to secure sleeping berths and, secondly, the internal temperature of the air-conditioned carriages, claimed to be 114° on one occasion. The Council described the travel conditions as "atrocious and the prices are atrocious". One Alderman said that sleeping berths can only be obtained by knowing the right person. Another representative intimated that there was a Departmental bias against people from Broken Hill in view of the problems gained in obtaining accommodation on the Forbes Mail departing Parkes for Sydney.[106]

Despite the denial by the Minister in January about the alleged poor service, the Commissioner announced in May an enhancement of the service which included the addition of two extra carriages in the Comet, the re-engineering of the Comet power cars from 600 to 1000 hp, new on-board condensers and motor-driven fans in the air-conditioning plant and an enhanced and enlarged on-board buffet to be able to handle and serve quick-frozen foods as well as enlargement of the refreshment room at Parkes.[107]

A press report stated that:

> "fire to-day swept through Broken Hill railway station this afternoon (i.e. on 10th July 1952) causing damage estimated at £80,000. The brake van of a Silver City Express, which was standing at the station when the fire broke out, was destroyed. Sheds and a big portion of the station proper were destroyed".[108]

That sounded the end of the life of the concrete unit building until another press report gave a different story. A second article stated:

> "One of the most disastrous fires in Broken Hill history destroyed the power van of the Silver City Comet and other railway property at Crystal Street station early this morning. The damage is estimated at £80,000. The fire, which started in the N.S.W. Government Railways' diesel shed at about 3 a.m., also destroyed the loco foreman's workshop and office van which were next to the Comet".[109]

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[105] *Barrier Daily Truth*, 29th June 1949, p. 3.

[106] *Barrier Miner*, 25th January 1952, p. 7.
[107] *Barrier Daily Truth*, 16th May 1952, p. 1.
[108] *Lithgow Mercury*, 10th July 1952, p. 2.
[109] *Sydney Morning Herald*, 11th July 1952, p. 3.

Talk about conflicting reports! For a start, both reports gave a different date of the fire. One said the station was almost destroyed and the other said that it was the Locomotive Foreman's workshop that was burnt. As the 1919 station continues to survive in 2019, perhaps it was not destroyed in 1952? A local press report clarified the situation stating that it was a Comet power car – not a "brake van" and not an "office van" that was destroyed on 10th July.[110] A third report stated that "the fire started in a mobile fitting shop which was parked near the van. The van's diesel fuel tanks exploded, shooting flames 80 feet into the air".[111] This third report said that the damage was estimated at £100,000 – a 20% increase in the damage level stated by the other reports.

The Commissioner, Keith Fraser, visited Broken Hill on 10th May 1952. Not a single word was spoken by those in the deputation about the desire for a modern railway station. The major concern in relation to the station was the completion of the out of shed which was then under construction.[112] The last free-standing out-of shed/room provided on the New South Wales rail system was approved in 1950 for Broken Hill station. It was built in 1952.

The subject of interstate rail uniformity emerged again in 1953 when a former Commonwealth Minister for Air, Arthur Drakeford, spoke in support of the topic. He also stated that there was a need for a uniform approach to such aspects as the service of alcohol on trains. As a Member of the Commonwealth Parliament, it is not surprising to learn that he proposed that all the state railway systems be transferred to the Commonwealth Government.[113]

Railway officials visited Broken Hill from Sydney in November 1953 to launch the re-engined and upgraded Comet that would operate from 16th November.[114] It was on display at the station. Railway staff also discussed arrangements for the proposed 1954 Royal visit.

A stinging letter was sent in early November 1953 to one of the local newspapers in which the correspondent accused Billy Sheahan of denying a new railway station for Broken Hill. "Arrow" accused Sheahan "of neglecting the community during his term as Transport Minister … to satisfactorily attend to our demands and needs". Arrow pointed out that local resident, Ernie Wetherell, had accused the Ministry of Transport on 16th September 1948 of the very same thing. Wetherell had made the accusation in the year prior to his election to Parliament as the Member for Cobar. The station was described as an "inadequate, antiquated and unsightly structure" and "that nothing so mediocre as the Crystal Street station disgraces any city in the whole of Australia". The immediate demolition of the 1919 building was demanded but Arrow said that the Government had diverted attention away from the urgent need by providing a "reconditioned, 'new' diesel train".[115]

In his *Annual Report for 1953-54*, the Commonwealth Railways Commissioner, Pat Hannaberry, recommended that the next work to be undertaken for Australian gauge

[110] *Barrier Daily Truth*, 15th July 1952, p. 5.
[111] *Daily Telegraph*, 11th July 1952, p. 9.
[112] *Barrier Miner*, 15th May 1952, p. 11.
[113] *Daily Advertiser*, 9th November 1953, p. 4.
[114] *Barrier Daily Truth*, 5th November 1953, p. 3 and 7th November 1953, p. 3.
[115] *Barrier Daily Truth*, 4th November 1953, p. 3.

unification should be for transporting ore from Broken Hill to the smelters at Port Pirie. Hannaberry pointed out that the legislation already existed for the acquisition of the Silverton Tramway by the New South Wales Government and for its conversion to standard gauge. The big advantage that the people of Broken Hill noted was that the project would provide Broken Hill "with one modem central station to replace the three stations now operating".[116] Three stations? It seems that the local press had counted in the then newly-announced, replacement Crystal Street station as well as the 1919 New South Wales station and the Silverton Tramway station in Sulphide Street.

THE QUEEN'S VISIT - 1954

On 17th March 1954 a special train arrived at Broken Hill bringing the Premier and Minister for Transport for the soon-to-be visit by Queen Elizabeth II. The local press stated that Crystal Street station was "newly painted in two shades of green with a silver roof" and was "lined with fresh shrubs in green-painted pots which were also grouped in the side of the main exit. The station building and coloured bunting under the verandah and gaily-coloured flags were strung out along the platform. The Mayor, Mr. Wetherell, the Minister for Transport, Mr. E. Wattison, M.L.A., Mr. A. B. West and representatives of other local organisations were at the station to meet the Governor and Premier. The Railways Commissioner, Mr. Winsor, was also aboard the train".[117] The Queen and the Royal party visited the city on 17th March.

The Premier, Joe Cahill, and the Governor, Sir John Northcott, left Sydney by train on 16th March for Broken Hill. They welcomed the Queen and the Duke of Edinburgh when they arrived at Broken Hill by plane at 1.50 p.m. on 17th March. The visit to Broken Hill was the Queen's last function in New South Wales during their Australian tour.[118] She stayed at Broken Hill for two and a half hours. It was a public holiday. One newspaper reported that "the decorations included a 'Welcome-Farewell' arch strung across Blende Street between two railway engines".[119]

There is no doubt that it was the visit by Queen Elizabeth II that was the catalyst for the announcement that a replacement New South Wales railway station would be built in Broken Hill. Two other factors played a subsidiary role. The first one was the existence of the report by Harold Clapp on interstate gauge unification and the second was the simultaneous visit of the State Governor, State Premier, Minister for Transport and the Railway Commissioner.

> One press report stated:
>
> "The need for a new railway station to replace the obsolete Crystal Street station has been realised for years. The recent decision, by the N.S.W. Railways, to build another station will, therefore, be widely acclaimed in Broken Hill. The Department's recognition of the growing importance of Broken Hill as a business and tourist centre is clearly shown by its resolve to provide a modern station with greatly improved

[116] *Barrier Miner*, 11th November 1954, p. 1.
[117] *Barrier Daily Truth*, 18th March 1954, p. 2.
[118] *Canberra Times*, 16th March 1954, p. 1.
[119] *Chronicle*, 25th March 1954, p. 14. Gary Hughes found photographic evidence on 4th March 2019 that states that the locomotives were "W" Class engines of the Silverton Tramway Company.

facilities. The Crystal Street station was originally very little more than a country siding, connecting Broken Hill with Menindee. It was adequate for all needs in those days. Today that same "country siding" is one of the major terminals of the N.S.W. railway network. Much interest will now centre in the actual location of the new station. This has not yet been decided officially. One of the inconveniences for through travellers from Adelaide has been the difficulty of getting from the Sulphide Street station to the Crystal Street station.

Surely something infinitely better than the existing set-up can be attempted when deciding on a new site for the N.S.W. railway station. There seems a strong case for the N.S.W. and Silverton Tramways to confer on the possibility of the one station serving the two lines. This could be done in much the same way as at Albury, where two distinct gauges operate - 5ft. 3in. from Melbourne and 4ft. 8in. from Sydney. Passengers, however, are inconvenienced only slightly. Now seems to be the right time for long range discussions on the question of the Broken Hill stations. There would be a great waste of money if a separate station were built by the N.S.W. Railways and finally the gauges of the two lines to Broken Hill were unified".[120]

The subject of a "central station" for Broken Hill was in the press again in May 1954. The Chamber of Commerce pointed out "the inconvenience to travellers journeying between Crystal Street and Sulphide Street stations". Local surveyors were engaged on preliminary work for a possible change to the then existing arrangements, but it is unknown whether these were engaged by the Railway Department or the local council.[121]

THE EXISTENCE OF SIGNAL BOXES

Dr Bob Taaffe and Graham Harper, both specialists in the history of signalling, interlocking and safeworking, provide the following notes on the existence of signal boxes at Broken Hill.

"The early history of signalling at Broken Hill is unclear, but most likely there was no signal box on the section of line between Broken Hill and Menindee when opened in 1919. The first installation comprised a single pull-over lever 'A', which released two keys from a duplex lock at the rear of the lever which, in turn, released four subsidiary ground levers and ground-frames.[122]

Sometime around 1927, two small signal boxes where provided, and these looked like sentry boxes. These structures covered the ground frames that controlled the crossing of the NSWR main line by the Silverton Tramway lines. Both crossings were located between Broken Hill the locomotive depot and the station. The signal box nearest the NSWR locomotive depot, called the North Broken Hill Tramway Crossing, was abolished in May 1962. The second was 600 yards short of the station and was called Silverton Tramway Crossing. It was closed about April 1969.

[120] *Barrier Miner*, 25th March 1954, p. 3.
[121] *Barrier Daily Truth*, 15th March 1954, p. 2.
[122] Traffic Branch Circular Diagram No. 13301 of 1927.

A platform level signal box was provided on the country side of the station buildings at the Crystal Street station on 24th February 1942. The interlocking frame comprised eight levers including four Annett keys for the then numerous ground frames, the so-called Down Home and Up Starting signals and an Up Home signal jointly controlled by an exchange sidings ground frame. What appeared to be a so-called Down Starting signal was worked solely from the exchange sidings.

The signal box on the platform was a Taaffe Type P design, being timber-framed with the external walls covered with weatherboards to the height of the window sills and flat asbestos cement sheets above that point. The use of this combination of materials was typical of New South Wales practice between 1935 and 1960. The signal box had a gable roof. This signal box was renamed Broken Hill Yard signal box in May 1957 when a new signal box opened in the new station. Yard signal box was closed when the new route setting panel was opened in the extended station building in 1970.

When the yard was extended during the World War Two to allow transhipping of wartime traffic, a small signal box was provided at the new crossing of the Silverton Tramways line with the standard gauge line to the Zinc Corporation works. The box was located at the intersection of Gossan and Crystal streets and opened in May 1944. It was closed prior to the opening of the standard gauge line to Port Pirie.[123]

NOTES BY GRAHAM HARPER ON THE SAFEWORKING ARRANGEMENTS AT BROKEN HILL AND BETWEEN CONDOBOLIN AND BROKEN HILL

A passenger train from Broken Hill would take almost an hour to reach Kinalung, which was the first staff station heading east, while a goods train would take just over one and three-quarters hours. Coming the other way, i.e. into Broken Hill, the times would have been 66 minutes and 133 minutes respectively. For these times, the section would technically be occupied by a train, hence the use of safeworking shortcuts which were provided in Broken Hill by the use of two Down Home signals and the many ground frames. Interestingly, the distant signals protecting each home signal were designated Inner and Outer Distants, but the home signals were given no discriminatory names. The Outer Distant controlled the Home signal protecting a crossing by the Silverton Tramway, a further crossing by a two feet gauge from the Junction North Mine and the junction to the New South Wales locomotive depot and the Inner Distant signal protecting the sidings adjacent to the platform, which included a second connection with the Silverton Tramway.

The oddity at Broken Hill was that the first home signal was controlled from two ground frames, each protecting a crossing with mine lines, and no control was exercised from Frame “A” [actually, Lever “A” in 1919]. In other places, this signal, along with the station home signal would have been controlled from the station.

To allow greater flexibility in shunting and locomotive movements, a shunting key was provided. The shunting key, or staff, was made available to a shunting movement to occupy

[123] Emails from Bob Taaffe dated 27th February 2019 and from Graham Harper dated 1st March 2019.

the main line. It was released from Frames “C” and its release would depend on the Home signal being placed at stop. In this way, a train could enter or leave the main line at Frame “E” with another approaching from [then] Kinalung. The key would be normally kept in the bracket lock at Frame “C”.

Different loose keys were held at Broken Hill by the Station Master, the Locomotive Department and the shunting staff to operate the numerous ground frames. This was not unusual practice for the New South Wales Railways. The situation was probably exacerbated at Broken Hill, where the subsidiary frames in question were well over half a mile from the station. Also, the section to Kinalung would be occupied for long periods by each train, especially in those early days and this would impact on shunting or locomotive movements.

Ordinary train staff and ticket protected trains between Menindee at Broken Hill. Now that was a bit unusual. Between 1916 and 1930, all new single lines were equipped with electric train staff (ETS) except:

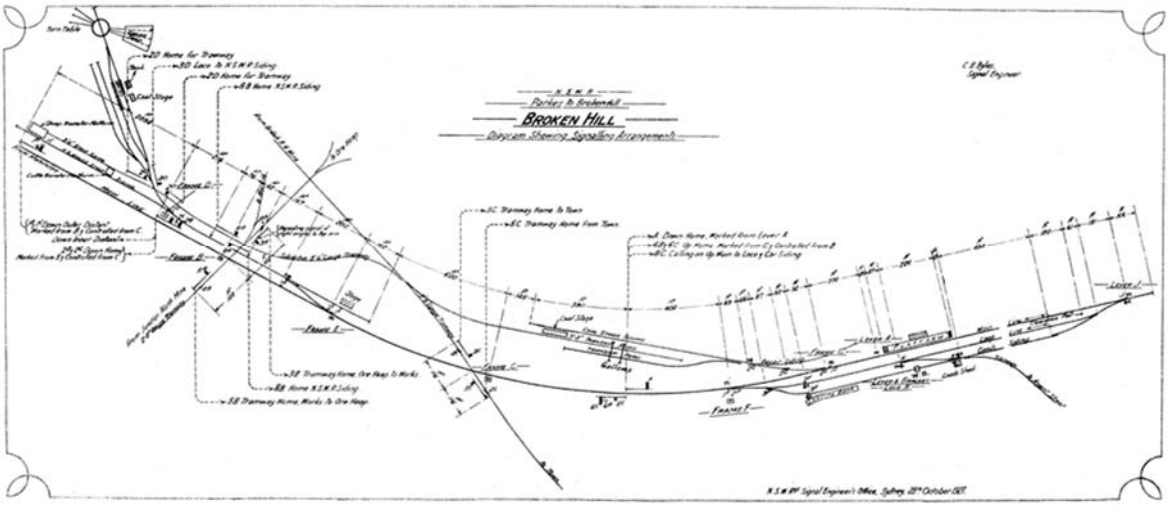
- Barellan to Griffith [1916]
- Oberon [1923]
- Kunama [1923]
- Ballina [1930]

Such a statement excludes short sections such as Casino Triangle. It would definitely be possible that electrical train staff could have been installed at staff stations between Menindee and Broken Hill if the line had been opened in the 1920s.

Electric train staff appears only to have been installed between Trida and Menindee. This occurred during the era of standardised ETS installations to such hectically busy places as Taralga and Westby. That said, the climate is harsh and would be very hard on the batteries needed to power the electric staff system. Extreme climate made dependence on electric line wires a bit tricky and aerial line wires would require greater maintenance if train working was to depend on their availability. The main problem with ETS on the Parkes to Broken Hill section would have been the remoteness of the locations from civilisation and from electricians for maintenance. A failure could result in the electrician having to travel 500 or more kilometres, often over poor or non-existent roads before even starting to sort out the problem. The staff instruments specified for most, if not all, of the ETS stations were miniature instruments.

Sandy ground around Gum Lake and other places made the use of long runs of channel iron undesirable, so points and catchpoints of intermediate sidings were controlled by separate levers, rather than being connected by channel iron to allow operation by a single lever.

The 1927 signal diagram is shown below/overleaf.



1969 – THE USE OF THE 1919 STATION BUILDING FOR DEPARTMENTAL PURPOSES

The Division Engineer at Parkes in 1969 proposed to use the 1919 structure for departmental purposes. From the Sydney end, the rooms to be used as offices were designated for:

- Track Inspector and store,
- Building and Bridges Inspector and clerk,
- Project Engineer,
- Way and Works Inspectors and Assistant Project Engineer,
- Signal Sectionman, &
- Toilet.

1970 - A PERSONAL MEMOIR BY FRANK JOHNSON

Frank Johnson is a retired civil engineer, having commenced duties as a cadet engineer in 1964 in the Way and Works Branch with the then Department of Railways. He worked for about six months at Broken Hill at the beginning of 1970 as the Project Engineer. His office was located in the 1919 station building. He writes:

> "The opening of the Sydney to Perth standard gauge link necessitated a considerable amount of track upgrading works from Parkes to Broken Hill in order to convert it from a rather extended branch line into a Class 1 main line. In addition, Broken Hill itself needed to change from a sleepy outpost of the NSW Railways system into a major yard and interchange point. In those days, all through passenger and freight trains changed locomotives and crews at Broken Hill, requiring new and substantial facilities. Work was carried out by the Way & Works Branch of the NSW Railways in the late

1960s and early 1970s, under a number of Project Engineers along the length of the line as the works progressed.

The works at Broken Hill and at several locations eastward came under the Project Engineer, Broken Hill, who together with his small staff occupied the old station building. The word “his” is used deliberately, for there were no female Project Engineers in those days and, in fact, all the railways project staff at Broken Hill were male. I was fortunate enough to occupy the position of Project Engineer, Broken Hill, in the first half of 1970 and was there for the inaugural Indian Pacific as it passed through Broken Hill on 24th February 1970.

For what was quite a major construction exercise, the project staff was quite small, comprising:

- Project Engineer (usually a Class 1 Civil Engineer),
- Per Way Inspector (looking after the day labour track gangs who essentially completely rebuilt Broken Hill Yard and constructed extended crossing loops at Kaleentha Loop and Kinalung),
- Two construction foremen (who were the clerk-of-works supervising the contract building works in Broken Hill Yard, including the new goods shed, loco servicing facility, crew barracks and combined office building), &
- Timekeeper (for the railway wages staff).

The old station was thus essentially a basic site office and “basic” it certainly was. The Project Engineer had a room and the other staff occupied the rest of the building.

Naturally, there was no air conditioning or heating, so one had to just put up with the extremes of temperature that Broken Hill offered. I recall my predecessor Project Engineer saying that he had a two-week spell of 100 degrees F, where the office conditions were so bad he used to come back at night to do his paperwork. Presumably, conditions out along the track were even worse. Putting up with cold weather was easier, for one merely put on a jumper or coat!

By the time I left Broken Hill around the middle of 1970, the building works and yard reconstruction were nearing completion. Track work was then focussed on the extended crossing loops between Broken Hill and Ivanhoe.

Completion of rerailing of the Broken Hill Line (upgrading from 80lb/yard loose rail to 107lb/yard welded rail) continued for another few years. This was still in progress when I was Programme Engineer in 1973-1975, and we had Mechanised Re-railing Gangs at Broken Hill and Menindee. However, by then there were no permanent project staff

in Broken Hill and I assume the old Broken Hill Railway Station had again succumbed to disuse and decline".[124]

Did Frank live in one of the three 1952-built railway houses in Wills Street? No. Read what he says.

> "Those houses certainly weren't offered to the Project Engineers. As a graduate of University of NSW, I was able to take over my predecessor's room at the University Hall of Residence in Argent Street as the University of NSW had a School of Mining facility in Broken Hill. This was a very basic and 'look after yourself' set up, so I ate all my meals out, including sending the timekeeper down the road each morning to get my breakfast. I was on full expenses, fortunately.
>
> The Railways finally woke up that they needed to stop the mass exodus of young engineers to the mining industry and the Department of Railways appointed me home station Sydney while I was in Broken Hill".[125]

THE CULTURAL SIGNIFICANCE OF THE 1919 BUILDING

The dominant cultural component of the 1919 station building is the overall story it reflects about the decision of the New South Wales Government to provide a style of terminal building, usually located at small, relatively unimportant country locations, at what was then the State's third largest city. Was this mismatch purposefully enacted by a sceptical Sydney-based government as an intentional or unintentional rebuff to the city's industrial power or was it simply the exercise of what was then the bureaucratic policy of providing low-cost structures at the end of rural, non-paying branch lines? No matter what the explanation was, the choice of a very plain terminal building angered Broken Hill residents for over three decades. The station building is one of the most easily interpretable signs of the economic tussle between the 19th century colonies of New South Wales and South Australia and the similar political struggle between Sydney and Broken Hill in the late 19th and first half of the 20th centuries.

The building that was erected at Broken Hill in 1919 and stands today was amongst the first all-concrete structures built on the NSW Railways and perhaps even across the private sector. Mindful of the trouble termites were causing to timber structures, the NSW Railways maximized the use of concrete for all parts except roof rafters, the frame for the platform awning and door and window joinery. Even the hardwood timber flooring was placed on top of concrete slabs. Broken Hill received the largest version then available and extended the

[124] Email dated 24th April 2019. Frank wrote an article for *Australian Railway History*, August 2013, relating to the early period of his railway career. He has also penned articles in the December 2016 edition relating to construction of the City Circle and in the January and March 2018 issues further concerning his memories of a Division Engineer. He has also started preparation on two more articles for ARH, one on his time as Deputy Division Engineer, Metropolitan, and then Programme Engineer; and a second article dealing with his time as Air Space Development Engineer and then Resident Engineer, Sydenham, in the Construction Section of the Way & Works Branch.

[125] Email dated 25th April 2019.

structure in 1928, just after the final part of the link with Sydney had been opened in 1927. The building stands as a memorial to the way in which the New South Wales Government Railways stole a good idea (i.e. the use of concrete unit structures) from the Queensland Railways. This would not have been a big issue if the theft was a one-off occasion but the New South Wales Railways has had a long history of poaching ideas from various Australian railway systems rather than creating solutions itself to problems. Thus, the Broken Hill structure is a statue to the much broader issue of the culture of the New South Wales railway system.

The colour of the concrete indicates that local materials were utilised. Also, old rails were used to build the platform frame. Old rails continued to be used for platform construction up until the 1980s. They became very popular in the 1950s when a standard type of platform was introduced, known as the Cowan type, as that was the first location where the prototype was located. The platforms were open-fronted (i.e. no earth fill) using a frame of old rails with front and back cross bracing and a reinforced concrete deck. Image by Gary Hughes on 23rd March 2011.

Local materials were also used for the concrete units in the walls for the platform building and the units or slabs were formed from concrete poured into moulds of various shapes and sizes. The roof was sheeted with what were officially known as “Fibro slates”, being asbestos cement sheets set in a diagonal pattern. Similar buildings were erected in other rural locations, such as Bombala, Leeton, Murwillumbah and Oberon. Some commentators may point out that these and other towns that were served by concrete unit structures were much smaller than Broken Hill. This is correct but two points suggest that Broken Hill was in a different category. Firstly, all other places that had concrete buildings involved extensions of relatively short distances of no more than 50 miles or so. To reach Broken Hill involved a distance of some hundreds of miles through country which would barely generate any traffic. When completed, the line to Broken Hill was then the longest branch line in NSW. Secondly, no other concrete building was ever supplemented, supplanted or replaced with a second structure, with the exception of Broken Hill and Menindee.

This image by Gary Hughes on 23rd March 2011 shows what the Department called "asbestos cement slates". That was a contradiction in terms, but it broadly defined the size of the sheets. They were set in the diamond pattern. This product was used for the initial examples of concrete structures but, after the mid-1920s, large corrugated asbestos cement sheets were used in lieu of the small individual "slates".

The plans for the 1919 structure would have been laid out for public exhibition well before the commencement of construction, as was the usual departmental practice. It was at that time the leaders and community of Broken Hill could have protested about receiving a concrete structure. Change was possible, as was done at Dorrigo in 1924. No protest was made at Broken Hill and, consequently, no alteration to the proposed design and materials went ahead. The people of Broken Hill were simply thankful for a station building of any design because the priority of the city was a railway of any type to Sydney.

Community opposition to the design, materials and location of the 1919 building only started in the early 1920s following the knowledge that the missing length of track between Condobolin and Menindee would be constructed and the link with Sydney was a reality. That opposition was sustained for the next 30 years.

The NSW Railways planned in 1919 to build approximately 15 buildings of various types at Broken Hill that would also be made locally of concrete, including residences and barracks. Unfortunately, all of these were located adjacent to Crystal Street within the rail corridor of the extension of the standard gauge westward. A total of 22 residences and other buildings were demolished in 1942 to make way for a much-expanded transhipment yard.

The plainness of the 1919 Broken Hill building belies much of its innovation. Even the design simplicity of the building contains important cultural symbolism. Its lack of adornment is suggestive of the Australian cultural characteristic of you-see-what-you-get or, stated in other words, the no bull…., no airs and graces approach to life. The Broken Hill structure was functional and at its functionality was the only aspect of its construction with which the Railway Department was concerned. The Department was entirely dismissive of any notion that station buildings were required to contain a symbolic component in order to reflect the significance or size of the place served by the station. Perhaps rural people would have perceived the lack of architectural honesty of an ornate structure if a fancy terminus had been provided in 1919. Rubbish! The people of Broken Hill, once they were aware that the connection with Sydney was actually going to occur, turned their attention to the poor quality of the station building and its ability to act as a front door to the city. What was acceptable for a 73 mile isolated line was not acceptable for a transcontinental railway linking the city with Sydney.

The wall of the platform at Broken Hill it is also significant. The wall and the coping on top of it were formed by concrete poured in situ. The coping had a classy, curved profile. This style of platform wall was used nowhere else in NSW than on the Broken Hill-Menindee railway. It remains today largely intact and is a statement of the high class workmanship by locally employed workers. Concrete poured in situ did occur in the 1890s for a short time but the profile of the coping was different.

It should also be noted that the Broken Hill-Menindee section was completed first in order to help the residents and mines of the city cope with firewood and water shortages. In 1919, 1944, 1945 and 1951 the NSW Railways allocated additional resources in the form of rollingstock, locomotives and trackside infrastructure to supply the city with water from the Darling River. John Smethurst, a one-time City Clerk, Editor of the *Barrier Miner* newspaper and Broken Hill builder, was described in 1909 as an ‘architect’. He invented and held a patent for a rain water tank used by the NSW Railways that was self-cleaning. The NSW Railways paid royalties to him. However, when the line opened in 1919 there was no need for a Smethurst self-cleaning water tank on the platform as Broken Hill was the only station, apart from Sydney, where the station premises were connected at the outset to the city water supply.

When the line opened in 1927 between Broken Hill and Sydney, the train was not formed by old carriages, as would normally be the case for a branch line, but with more modern comfortable and higher speed vehicles. Most significant was the inclusion of the first full dining car in NSW. It seated 48 people at 12 tables in 1927. Prior to this, the only on-train refreshments were from small take-away buffet facilities. In 1934, the Railway Commissioner reported good patronage on NSW passenger trains serving Broken Hill, calling it “a great boon”. Possibly to repay the higher than expected passenger loading, the Commissioner in 1937 introduced the Silver City Comet on the run from Parkes to Broken Hill. This was the first air-conditioned train in NSW. Special trains were made available every Christmas to allow Broken Hill miners and others visit Sydney during the annual miners’ holidays. These are not the initiatives of the NSW railway organisation neglecting the transport needs of

Broken Hill but are inconsistent with the provision of the unpretentious and even vulgar terminus building. The provision of these excellent transport services engendered further inquiries by Broken Hill citizens to establish why they could not have a station building to match the quality of the trains. In a way, the Railway Department facilitated criticism of itself.

How does one reconcile the significant difference between the higher-than-normal quality of the passenger equipment for the terminus to Broken Hill and the deplorable station building at the terminus? The Department of Railways had introduced in 1929 what was later known as the Inter War Functionalist design, which was very broadly based on the Art Deco style. The small number of buildings that were erected in the 1930s to that design was approved only for the Sydney and Newcastle areas, with one exception, which was at Griffith in 1936. Why Griffith? The station structure there, opened in 1916, was even more lamentable than that at Broken Hill. It was an unbelievably tiny timber structure without a platform awning. Several previous plans had been approved from the late 1920s for a replacement structure, but the Depression interfered with funding arrangements. With only one structure replaced in the 1930s in rural New South Wales, the evidence clearly indicates that Departmental policy did not support the allocation of capital funds to station improvements outside of Sydney and Newcastle.

While passenger business on the Broken Hill line in the 1930s was buoyant, the Railway Commissioner bemoaned the situation with the low level of freight traffic on the Broken Hill line. In his 1934 *Annual Report* to Parliament, the Commissioner said:

> "general freight traffic, however, is menaced by the fact that, because of a strikingly preferential railway freight rating between Adelaide and Broken Hill, it is possible to consign goods by sea from Sydney to Adelaide and land them in Broken Hill for less than the legitimate railway freight rate between Sydney and Broken Hill".

Apart from the introduction of the Comet service in 1937, no other change occurred in the rest of the 1930s in relation to the Broken Hill train service.

During World War Two, major redevelopment of the Broken Hill goods yard was undertaken. Large overhead cranes were erected at other change of gauge stations, as at Albury and Tocumwal. It was as a result of the activity in the goods yard that the local Member of Parliament for Sturt, Edward Horsington, was critical of what he considered the low level of presentation of the 1919 building. During the War, the only platform buildings to be renewed were those funded by the Commonwealth Government as part of the War effort.[126] Those stations that were renewed were usually ones associated with transhipment of troops between rail and road or the location of an adjacent army base. While the Department of Railways prepared plans for several replacement building in and after the War, very few were built. In fact, only a few were built. Between 1945 and the end of 1960, only 11 stations received new structures of any type, from the grand 1957 example at Broken Hill to a toilet

[126] There were a few exceptions, such as Menindee and Leightonfield, but these occurred usually as a result of destruction of the existing timber buildings by fire or termites. Funding for such stations came from the Department's own, in-house insurance fund.

block at Oak Flats. There were simply insufficient capital funds allocated by the NSW Government to the NSW Railways. Luckily, good fortune came in 1957 to Broken Hill, but that is another story.

SUMMARY OF THE 1919-27 BUILDING'S CULTURAL SIGNIFICANCE

In its centenary year, the 1919 Broken Hill station possesses the following features that supports its long term conservation and, hopefully, its adaptive re-use:

- The ability to reflect the story of the political, economic, industrial and social relationships between Broken Hill, South Australia and New South Wales,
- Very early construction of a pre-cast concrete building,
- Atypical design of the individual concrete units,
- Significance in the history of NSW station buildings (because concrete was a low-status product to be used in country areas),
- Method of construction, namely on-site production (not pre-cast in Sydney but the only on-site manufacture of the units),
- Connection between the building and the platform wall materials (mass concrete versus pre-cast concrete – very rare),
- Existing rarity, being the only remaining example on the Broken Hill-Menindee line and a rarity amongst non-railway residential and industrial buildings within the City (one of few concrete buildings in the city and the only one of the 1919 line),
- Archaeological potential, including remaining fabric of now demolished out-buildings,
- Largest concrete unit building constructed at the time of line opening (1919 and 1927),
- One of only two concrete unit stations on the NSW rail system that has received additions at both ends of the original structure,
- High level of craftsmanship in a mass production building system (note absence of air bubbles in the face of the individual units),
- Oldest and second largest surviving example of all concrete structures and the largest surviving concrete unit building using 15 inch high units,
- The need for further research in order to correct the omission of the significance of the structure in the published literature on concrete buildings,
- The popularity of concrete unit railway buildings amongst railway observers and railway modellers,
- Potential technical significance related to the use of both mass concrete and pre-cast concrete at the one site (extremely rare),
- Potential tourist potential as an iconic city building,
- An early example of a platform building being repainted in pastel colours, &
- Freight orientation of the 1919 railway, shown by the fact that the goods yard was closer to the urban centre than the passenger platform.

Stuart Sharp

25th April 2019

MOUNT GIPPS RAILWAY STATION RELICS

Mount Gipps station in about 1970 showing the "shelter shed". On the left of the open-front is a small container in which messages were placed for the local track gang. On the right-hand side, is the round disc to alert trains to stop at the station. The three corbels to support a future platform awning are visible on the vertical posts. The rainwater tank has been removed, probably stolen, but the timber stand remains. The telegraph pole indicates that a telephone is located inside the shed. The surviving residence is located to the left on the Sydney side of the station a little less than a kilometre distant. While the goods loop is extant, the Department of Public Works siding closest to the camera has been removed. Image No. 034697, ARHS Resource Centre.

THE STATION

Mount Gipps opened at the line opening on 15th July 1919. It was the first station from Broken Hill. Oddly, a press report in September stated that "the station has not been completed, but the building is of the shelter-shed type with a platform running along the front".[127] That report related to the non-construction of the goods loading bank on the "loop siding". In fact, the loading bank was never built.

Mount Gipps was the highest railway station between Broken Hill and Menindee, the height above sea level being 773 feet. Broken Hill was 984 feet and Menindee 204 feet.[128] The station was closed

[127] *Barrier Miner*, 7th September 1920, p. 3.

[128] Ibid, 15th December 1924, p. 2.

on 23rd November 1974. The date of demolition of the platform building is unknown but it was in place in February 1978.[129]

The station arrangement plan was issued in November 1916 and showed that a "shelter shed", 15 feet 2 inches long by 12 feet 9 inches wide, was intended to be provided. At that time, the Department of Public Works proposed to erect a timber building but that was not implemented. A second plan for a timber structure, coded P1, was issued in November 1917 and, again, the building was not erected. A new and third plan, prepared in the Office of the Signal Engineer, was issued on 14th June 1918, coded Y 18. It provided for a Pc1 concrete unit building, without an awning. The plan also indicated that the same one-room shelter shed would be built at The Gorge and Box Tank. The shelter shed was built in accordance with the third plan.

What was a shelter shed? It was in 1915 that the term, "shelter shed", came into the New South Wales Railway vocabulary. It was not a simple case of referring to a small building for waiting passengers. The term, "waiting shed", had been in use since 1855 and usually referred to a one room structure with an open front with seating for waiting passengers. However, in the 1880s, the term was applied to double track territory and referred to a subsidiary structure on an opposing platform to a major brick building. In the case of the buildings between St Peters and Hurstville, the waiting sheds were approximately 80 to 100 feet in length. By 1890, "waiting shed" reverted back to its initial application as a small, timber building and it continued to be used up until 1915.

It was in 1915 that "waiting shed" was replaced by "shelter shed". At that stage, both structures were of timber construction. With the introduction of the new term was a new meaning. "Shelter" referred not only to weather protection for customers but also to parcels, mail and luggage. Rather than being a structure solely for the benefit of passengers, shelter sheds and a combined freight and passenger usage and the term continued to be used widely the widespread introduction of concrete unit construction in 1919 and continued to be used until 1932, when the Department ended the use of concrete buildings for passenger purposes.

A photograph of the one room concrete building at Mount Gipps without a platform awning was reproduced in the in-house magazine, *The Staff*, on 22 July 1929 (page 398). Five additional photographs were also printed on the same page and showed that Mount Gipps was the home of Gang No. 185 and, at the time, a "tool house and trolley shed" were under construction. Members of the Gang resided in an unknown form of accommodation – probably tents – and had created a garden behind the platform waiting shed. The photographs confirmed the absence of the goods loading bank.

Stephens Creek reservoir supplied drinking water to Broken Hill. Coal for the pump house at the reservoir was conveyed from the eastern coalfields. In order to improve handling and delivery, the Public Works Department in 1928 constructed a siding at Mount Gipps "so that trucks can be kicked

[129] Photograph in *Railway Digest*, May 1981, p. 163.

off the train there and the coal carted to the reservoir". Coal for the Umberumberka reservoir (near Silverton) was also being conveyed by rail from the east but was unloaded at Broken Hill.[130]

For four months in early 1952, Mount Gipps was a staff and ticket station to assist with water trains being unloaded. It closed as a crossing loop on 15th July 1952. Veteran signalling and safeworking guru, Graham Harper states that similar loops were opened at Horse Lake, Wahratta and The Gorge in 1952 as unattended crossing loops. He says that none of these, with the exception of The Gorge, had closing facilities, meaning that the safeworking procedures had to be undertaken at all times while trains were operating. In respect of the loop closure at Mount Gipps, was the anniversary date for the opening of the isolated Menindee-Broken Hill chosen purposefully?

This is Box Tank, but the image enhances the interpretation of the same type of structure that was at Mount Gipps. The external concrete walls have been painted in the traditional colours of the New South Wales Railways, a palette which lasted from 1855 to 1951. The walls have been painted in the colour of mid-stone while the timberwork, as seen on the roof gables was painted in dark-stone. As was intended, the asbestos cement sheets on the gables were unpainted. The original white colour of the asbestos cement slates on the roof has turned black because of the incessant deposit of locomotive smoke and dirt from the occasional rain shower. It appears that a door has been fitted to the opening into the shelter shed. Once again, the corbels to support a future platform awning are visible. The 100 feet long platform, the absence of a fence at the rear of the platform, the 15 feet long ramps, graded at 1 in 20, and the station building at The Gorge were the same. Graham Harper tells us that the well-ballasted loop line was provided in 1941 which could be opened and closed as required. In addition to a traffic officer to take charge of the operation, an officer from Signals and Telegraph Branch had to attend the opening/closure to provide the correct key for the procedure. The Box Tank loop was taken out of use altogether on 26th February 1952, but was re-opened on 1st September 1965 as the same type of loop with the same operating procedures as the 1941 effort. Finally, in 1986, it was taken out of use for the last time, along with the goods siding. Undated image No. 027881a, ARHS Resource Centre.

[130] *Barrier Miner*, 18th April 1928, p. 3.

METHOD OF CONSTRUCTION

Basically, concrete structures were firm formed of both three and six-inch square vertical posts between which blocks of concrete were inserted. The idea of the use of concrete was to precast the units, sometimes referred to as slabs, at a central workshop and convey them to the work site. The use of concrete was aimed at saving money. In the case of both terminal and intermediate buildings between Broken Hill and Menindee, the moulds for pouring the concrete were conveyed to Broken Hill and made there. For once, that was an act showing good sense.

The building was constructed to a standard plan and the building code was Pc1. There were 148 precast station buildings of which 87 are thought to be Pc1s. However, 14 Pc1s are yet to be confirmed by photo or a plan marked 'as executed'. For example, the Rand line had four locations with precast buildings but the buildings at Ryan and Mumyabla stations are not confirmed.

It has often been said that the Department of Railways had a standard plan for every structure. While that is not entirely correct, it is closer to the truth than to being of falsehood. How much effort did the Department put into the concept of a standard Pc1 building? An idea of the absence of standardisation in the standard plan is reflected in the following different sizes of the standard concrete units and the total number of units for each length used in the building at Mount Gipps:

LENGTH	NO. OF UNITS
• 2 feet 1 ½ inches	2
• 2 feet 9 inches,	3
• 3 feet 9 inches,	2
• 4 feet 0 inches, &	5
• 4 feet 3 ½ inches	4

So, for a building measuring 12 feet 7 inches wide and 15 feet 6 inches long, there were five different lengths of standard concrete units. How standard is that? Readers decide. The vertical distance between the bottom and top plates was 10 feet 3 inches. The gabled roof was covered with asbestos cement “slates”.

The floor of the shelter shed was formed by eight concrete slabs 21 inches wide and one concrete slab 18 inches wide. These were supported by the engagement of inverted old railway lines and braced by redundant, circular point rodding with a diameter of 5/8 of an inch. While in larger structures, hardwood flooring one inch thick would have been laid directly onto the concrete, this was not done at Mount Gipps. If there was ever a piece of evidence that money was tight when the structure was built, it was in the provision of three corbels on the extreme vertical posts of the building on the rail elevation to hold the bracing for a platform awning, whenever the awning was to be added at a later time as money became available. However, platform awnings were never provided for the intermediate stations between Broken Hill and Menindee.

Ten examples of the Pc1 structure are extant and these are located at:

- Holts Flat, Bukalong and Jincumbilly (Nimmitabel-Bombala and are equally the oldest (21st November 1921),
- Wumbulgal (Yanco-Griffith – now in the local museum at Whitton),
- Nyrang Creek (Canowindra-Eugowra but relocated to a location not far from Canowindra station),
- Burrandana (The Rock-Westby),
- Strathaird Roslyn-Taralga),
- Munyabla (Henty to Rand),
- Tyumba (Booyong-Ballina) &
- Mount Murray (Unanderra-Moss Vale).

THE PLATFORM

The platform wall at Mount Gipps facing towards Sydney. The track has been re-aligned away from the 1919-built platform wall. The construction of the wall by the use of mass concrete poured in situ off timber formwork was an experiment and not later repeated with the construction of other concrete unit station buildings. Note the steel sleepers under the rails, which were about to be replaced. Image by Gary Hughes on 12th October 2010.

The platform was 100 feet long with 15 feet long ramps at each end. This was a standard length for intermediate stations on the line at throughout the New South Wales railway system at the time. Mount Gipps was the only station on a track curve, but the curve was slight.

The platform dates from 1919 and was formed by packed earth. For the wall, the usual brick or timber was not employed. Neither did the NSW Railways use pre-cast concrete

units. Rather, the decision was made to build a wall and coping from mass concrete off timber formwork. The first time the NSW Railways used the combination of concrete units for a building and mass concrete for the platform wall was for the Broken Hill-Menindee section of line. The profile of the coping was unique and not repeated elsewhere on the NSW rail system.

Despite being closed for 45 years, the platform wall is extant.

Was the platform at Mount Gipps on a curve? Yes, but of the slightest radius. Image by Gary Hughes on 12th October 2010.

THE RESIDENCE

The time at Mount Gipps went very quietly for a couple of decades but, from the 1930s, the Australian Railways Union undertook a campaign to improve housing conditions for track staff between Broken Hill and Condobolin. It took another decade for the Department of Railways to announce improvements to the housing situation. In January 1945, the Commissioner announced the construction of 47 "timber-framed asbestos cement residences" will be erected in this section. Five houses were built at Euabalong West; three at Matakana, three at Roto, two at Trida, five at Conoble, seven at Ivanhoe, seven at Darnick, seven at Kaleentha Loop, one at Menindee, four at Kinalung, and three at Mount Gipps. The residences were described as comprising "four rooms, laundry, bathroom and back-porch and will, have concrete foundations and pillars. They will have built-in cupboards and will be lined with asbestos sheeting

and “Masonite prestwood”.[131] They will have enclosed verandahs on two sides, and each residence will be equipped with three 800-gallon water tanks”.

This is the remaining one of three residences built in 1953 for members of the track gang. The design features were: low-pitched hipped roof; wide verandahs on three sides; weatherboards fitted to external walls to the height of the window sills and asbestos cement sheets above the sills & three rainwater tanks. Image by Gary Hughes on 12th October 2010.

The Department acknowledged that “the residences should fill a long-felt want for railwaymen who have agitated for some time for the erection of a better type of home for the permanent staff on the various sections of the line”. The Department also promised in 1945 to erect several hutments at this siding, and the press reported that these were in the course of erection in January 1945.[132] A hutment was a small cottage with a linear floor plan, meaning that there was no internal corridor and that residents walk from one room directly into another room. These were used widely during World War Two and, after the War, many were surplus to requirements and were relocated to other locations throughout the railway system. One of the last surviving is that at Nambucca Heads.

The three residences were built at Mount Gipps in 1953. In January 1971, the Railway Department called tenders for the removal of the three cottages, their transportation and re-erection in Broken Hill.[133] For an unknown reason, the tender did not proceed and residence Nos. 2 and 3 were demolished in 1975. The remaining residence, No. 1, was purchased by the local Ganger and it is understood that he continues to dwell in the house. The residence is what is called in Railway circles a “res site”. This indicates that the dwelling is privately owned but the owner pays a rent for the lease of the land occupied by the building.

[131] This was a spelling error. The correct word was “Pressedwood”.
[132] Ibid., 4th January 1945, p. 7.
[133] *New South Wales Digest*, February 1971, p. 4.

Thanks to Graham Harper in relation to signalling and safeworking and to the staff of the ARHS Resource Centre for all-round, long-term, sustained help.

Stuart Sharp, Paul Horder and Gary Hughes 2nd April 2019

MENINDEE RAILWAY STATION

This was the Menindee station which existed prior to the establishment of Countrylink in 1989. The main building is mostly in original condition, with the weatherboards terminating at window sill height and asbestos cement sheets above. The provision of detached male toilets on platforms was a 1959 feature. It was part of a programme in the late 1950s and 1960s to eliminate the smelly, off-platform male toilets on many minor lines since Adam was a boy. Although undated, the photograph was taken in or after 1985 as two residences are shown at the right, just beyond the platform. The one closer to the camera was built in 1985 as a "transportable house" and the residence further away (with the dominant roof) was erected in 1946, being the first official residence where the external walls were completely covered with asbestos cement sheets. Before 1944, there was an interlocking frame on the platform where the gap in the platform wall is located. With the construction of the existing building, the frame was enclosed in the Station Master's office. It is unknown whether a signal box protected the pre-1944 frame. Paul Horder in 2013 photographed under the building at the Broken Hill end. He discovered that the original frame was still on its original mass concrete foundation with 1940s-vintage piers supporting timber floor beams to the right. Have you seen other places where the Department has used orange paint? Of course, you have. The use of orange became popular in the 1960s and 1970s for platform seats and replaced the traditional green hue for platform furniture. Photograph by G. Dorman and is image No. 027880b, ARHS Resource Centre.

THE TOWN

"Menindie" was an established village/town before the station opened on 15th July 1919 at the time of the line opening between Broken Hill and Menindee. Wikipedia states that "Menindee is the oldest European settlement in western New South Wales, and the first town to be established on the

Darling River". The first settler in Menindee was Tom Pain who arrived in 1852 with his family. He opened the Menindee Hotel in 1853. Now known as Maiden's Menindee Hotel, it is considered by those who are learned about hotels to be the second-oldest hotel still in continuous operation in New South Wales.[134]

The town was established by the time Burke and Wills arrived there in 1860. Menindee remained the terminus for the isolated rail line until 1927, when the line to Sydney was completed.

There were locomotive facilities there as well as a barracks and several official residences. The most interesting items of infrastructure were the dual rail and road bridge over the Darling River and the siding to the wharf on the western bank of the River. Part of the earthworks of the siding are visible.

Menindee was the only location between Euabalong West and Broken Hill where water for steam locomotives was pumped from a natural water course.

THE 1917 STATION BUILDING THAT WAS NOT BUILT

The first plan issued that mentioned Menindee station was a Block Plan for all the station buildings between Broken Hill and Menindee inclusive.[135] All buildings were to be of the newly-invented "P" type – the standard plan having been approved on 30th January 1917. No one knows for sure for what "P" stood – probably portable. Work was well underway in early 1917 on the construction of that section of line and in July the tracks were nearing Menindee.[136] On 2nd November 1917, plans were approved by William Hutchinson, the Engineer-in-Chief for Railway Construction, for the use of the newly-approved standard plan, coded "P1", for the buildings at The George, Mount Gipps and Box Tank and for a "P2" building at Menindee. The Appendix at the end of these notes shows the standard "P2" design. These proposed timber structures for Menindee and the three intermediate stations were never built and in 1918 approval was given for their replacement with concrete unit structures. This change of materials applied to many stations on many branches and connecting lines during World War One throughout the railway system.

In March 1918, work on the construction of the section of line between Broken Hill and Menindee was very well advanced. A local newspaper reported that a third locomotive was being assembled and a newspaper reported that the Chief Commissioner, James Fraser, and a senior engineer, Robert Kendall, rode the train between Broken Hill and Menindee in October.[137] It is of significance that William Hutchinson, the Head of the Railway Construction Branch, did not accompany the Chief Commissioner. Instead, Fraser chose Robert Kendall, who headed the Existing Lines Branch. Why? Was this another piece of evidence that Hutchinson was not up to the demands of the top job. That

[134] Aussie Towns website. https://www.aussietowns.com.au/town/menindee-nsw Accessed 6th April 2019.
[135] A Block Plan was a plan which included all infrastructure items on a defined section of line using alpha-numeric codes to list platform buildings, toilets, residences, goods sheds etc. these referred to standard plans and, thus, eliminated the necessity for the preparation of separate plans for each item at each station.
[136] *Barrier Miner*, 27th July 1917, p. 4.
[137] The *Barrier Miner*, 27th March 1918, p. 4 and 5th October 1918, p. 4.

would have been a fair assumption considering the large pile of evidence of incompetency, laziness or disinterest that Hutchinson had displayed since he took office in 1904.

A CHANGE OF POLICY – CONCRETE REPLACED TIMBER - 1918

A drawing was prepared in the Office of the Signal Engineer, coded "Y8" and dated 14th June 1918 which replaced the 1917 plan. For the intermediate stations, namely The Gorge, Mount Gipps and Box Tank, one room concrete unit buildings, coded "Pc1" were approved. The buildings were 15 feet 6 inches by 12 feet 7 inches external and the entrance way was 4 feet 9 inches wide. The ceiling height was 10 feet 9 inches. The floor slabs were one foot nine inches wide, four feet long and 15 inches wide.[138] Platform awnings were intended ultimately but were not fitted at the time of line opening, no doubt as a cost saving measure.

For Menindee, the Signal Engineer's Office prepared a plan dated 8th June 1918, coded "Y8", for a Pc2 building, with measurements 38 feet by 12 feet 7 inches external. At this station, a nine feet wide platform awning was to be provided and supported by four inch by three inch timber braces. The platform awning was not added until 1923. Life in that building must have been hellish for the first four years. Corrugated iron sheets covered the roof.[139] Both the "P" and the "Pc" standard designs contained the same floor plan. Firstly, there was an open-fronted "shelter shed" in which there were both shelving for parcels and a fixed seat; secondly, there was an office in which tickets were sold and parcels business conducted and, lastly, a private room in which the station officer resided. In this way, there was no need to provide a separate residence. One very interesting aspect of the plan was the sale of tickets over an open counter rather than through the traditional, small ticket window. This was a reflection that such buildings were only to be built at locations of small traffic volumes where security was not a major issue.

Oddly, it was not until 5th September 1922 that approval was given for a combined male toilet and lamp room, coded "Cc1". It was located off the platform. Heaven only knows what the station staff and passengers did between 1919 and 1922 to discharge bodily waste. No doubt Heaven would not wish to be reminded of the situation. One very unusual feature of the concrete building was the location of rainwater tanks side by side at the Sydney end of the building. The normal procedure was the placement of tanks at each end of the building but that was probably not an option as the interlocking frame was positioned there. Menindee appears to have been only one of three places where that occurred, the others being at Yeoval and Cumnock in 1923 with four 600 gallon tanks. It is hard to imagine the temperature and taste of the water from the iron tanks. A second unusual aspect was the use of corrugated iron for the tanks. The prototype concrete unit at Lake Cargelligo in 1918 had a precast concrete tank as did virtually all concrete unit buildings after the Menindee building. The two tanks were covered on three sides with ornate vertical boarding, as well as a corrugated iron roof. At the time, some locations had roof and side covers and some did not. For

[138] Photograph showing the absence of a platform awning at Box Tank in *Australian Railway History*, August 2013, p.20 and *Barrier Miner*, 15th March 1919, p.5.
[139] This concrete building at Menindee was burnt down in 1941.

example, in 1919, the concrete unit building at Toongabbie had no covers but the concrete building at Macksville had tanks at each building end with covers.

Gary Hughes took an image of the information plaque at the station on 25th October 2013 which shows construction of the concrete unit building in 1919. It was only the provision of the roof system that was the main item requiring the attention of a number of tradesmen. The doors and windows were standard sizes and were usually pre-made in Sydney workshops and delivered to the worksite. Whether that occurred in the case of buildings on the Menindee-Broken Hill line is unknown.

So let us just recap on what conditions were like for the staff when the station opened in 1919. There was no toilet for the first three years; no awning over the platform to provide shade for the first four years; the drinking water would have been almost boiling and the staff member had to live in a single room, without a kitchen.

ADDITION OF A FEMALE WAITING ROOM AND TOILET - 1923

Men should not be too concerned that women got preferential treatment at Menindee in relation to the toilet facilities. The absence of toilets for men also applied to women. It was not until 27th of March 1923 that a female toilet and ladies' waiting room, with a combined length of 15 feet, were approved at the Sydney end of the existing building.[140] The platform awning was extended to cover the additional room. The additional structure cost £377 and the work was completed in 1923.

The entry into the female rooms at Menindee featured the then more modern porched entry where ladies would turn one direction to go to the waiting room and another direction to go to the toilet. In such cases, the ladies' waiting room did not act as an anti-chamber to their toilet, unlike the similar additions that were made to the existing timber buildings at Griffith and Yenda in 1922. So, at one place in 1922 staff members of the Existing Lines Branch designed and obtained approval for one

[140] Order No. 6190 Book No. 257, p. 373 (reference 21C/257 former State Rail Archives).

floor plan version while members of the same Branch in 1923 designed and obtained approval for the same facilities using a different floor plan. Why? Typical New South Wales Railway Department practice is the answer! No one seemed to care what was provided, including the top bloke who headed the Branch.

CONCRETE PLATFORM WALLS

Another application for the use of concrete in 1919 was for platform walls. Concrete poured in situ was used for all platform walls between Broken Hill and Menindee but all other walls on new lines throughout the NSW rail system in the same time period featured timber construction. There was a major deviation between Otford and Coal Cliff on the Illawarra line, requiring a new station site for Stanwell Park. For the platform walls at that station, precast concrete units were used for the first time in 1919. Interestingly, it was the Railway Construction Branch that was installing concrete poured in situ yet it was the Existing Lines Branch that was using the pre-cast units, a construction system that it had never used previously. Perhaps it was because the plans for the precast system had come from the Office of the Signal Engineer rather than the Railway Construction Branch? It remains another mystery lost to the whim of time.

FIRE DESTROYS THE MENINDEE BUILDING - 1941

Fire destroyed the then existing building at Menindee on 18th April 1941. It may seem strange that the 1919 structure constructed of pre-cast concrete units could be destroyed by fire, but it seems that the flooring and roof system were beyond repair.[141] No doubt all senior officers would have been sympathetic with the poor creatures that had to work within a concrete building in an extremely hostile climate and supported the abandonment of that material in any replacement structure. With speed which was unusual for the approval process in relation to replacement buildings, William Beaver, the Acting Chief Civil Engineer, approved the construction of a replacement building on 30th May 1941. The new structure was intended to be 67 feet long external by 12 feet wide internal and contained, from the Broken Hill end, the existing lever interlocking frame, a booking office with ticket window facing onto the platform, an out of room and a ladies' waiting room and toilet, with the usual porched entry. The obvious omission was a general waiting room.

[141] *Barrier Daily Truth*, 19th April 1941, p. 4.

The ticket window faced the platform in the 1944 building – a highly-irregular practice for the NSW Railways before 1930. The change took place starting with buildings on the then new East Hills line in 1931. The two different wall materials in the Menindee structure are obvious. The use of the "Bankcard" sign suggests that it had been a long time since coaching business was conducted through the ticket window. Worthy of mention is the vertical cover strip between the adjoining asbestos cement sheets. Their use was under-emphasised compared with the cover strips for the horizontal joints. Photograph by Gary Hughes on 13th October 2010.

The building at Menindee would be framed in hardwood and was to be clad externally entirely with rusticated weatherboards. The joinery was to be Mountain Ash. It was highly unusual to construct such a relatively large timber structure at that time. The Department had last built a large timber structure in 1931 when it constructed a pair of buildings at Jannali, which were funded entirely by Sutherland Shire Council. The last timber building consisting of more than one room that the Railway Department funded was at Cullen Bullen in 1927. So, the Menindee building would have been a rare beast indeed. The gabled roof was to be formed with corrugated galvanised sheeting painted white.[142]

The proposed design very, very broadly belonged to the Inter War Functionalist style with its emphasis on perceived sleekness. At a pinch, this perception was achieved by the use of the following elements:

- Low-pitched, hipped roof,
- Uncluttered roofscape enhanced by the absence of a brick chimney,
- Use of two different materials on external walls,
- Engagement of visually-obvious cover strips for horizontal joints between the asbestos cement sheets on the external walls (vertical joints were mostly butted without covers),
- Employment of three intermediate horizontal bars across each window,

[142] It was highly unusual that an architectural plan specified the colour of any building element, especially the roof, though this may have been done to ensure the maximum amount of heat avoidance in the structure considering the location of the Menindee.

- Flat-looking platform awning supported by horizontal ceiling joists, &
- Flat awning over the rear loading stage.

The Menindee building was completely void of any form of decoration and was purely utilitarian in intent and design. Why would the building at Menindee be so plain looking and not erected in the then dominant use of brickwork? The possible answer is that, of the three replacement buildings which the Department approved in 1941 – at Menindee, Coniston and Gerringong – it was only the structure at Menindee that required funding from State coffers. Also, it was the only structure to basically provide a freight function, whereas the other two were passenger oriented. The freight orientation of the Menindee building was reflected in the following elements:

- the absence of a general waiting room,
- the omission of pedestrian entry/exit from the road approach to the platform through the centre of the building,
- the location of the male toilet off the platform,
- the integration of the out of room into the centre of the structure – usually these rooms were detached from the main structure and placed elsewhere on the platform, &
- the direction of the ticket window facing onto the platform.

THE SECOND DESIGN FOR A REPLACEMENT BUILDING - 1941

In July 1941, William Beaver revised his previously-approved plan with the only change being the use of a hipped rather than the gabled roof. It was the hipped roof version that was ultimately built. Both versions utilised a full-length platform awning supported by cantilevered timber beams. There was no soffit under the awning. In both the May and July versions, the dado of the internal walls was to be provided by Plywood and asbestos sheets 5/32 of an inch thick above the dado line.

Tenders for the construction of the Menindee replacement building closed on 17th September 1941. It had been Departmental practice since 1932 to use contractors rather than day labour staff to build structures in the more remote parts of the railway system. No work was undertaken.

What explains the use of an all timber, unattractive building at Menindee – the first large timber structure since approval for the station buildings at Jannali in 1931? Well, the evidence suggests that even the Railway Department thought the 1941 design, although approved, would be below local community expectations and revised the design and issued a third plan, with a slightly improved design, in 1942. Keep in mind the Department was getting an earful of abuse at the time from the people of Broken Hill about the Department's lack of inclination to provide a station building commensurate with the status of that city. It did not want a repeat of that situation at Menindee.

The completion dates for some, moderate-sized projects are possibly an indication of funding by the Commonwealth Government. Cooerwull station was completed in June 1941, Dunheved in June 1942 and Gerringong in November 1942. The structure at Menindee was not completed until 15th May 1944. It would be a safe bet that the replacement building for Menindee was not related to the War

effort and its lack of design input, its freight orientation and its simple building elements suggest it was funded by the Railway Department from its own insurance fund.

This photograph, taken by G. Dorman on 18th March 1985 shows some structural changes to the 1944 building, notably the metal door to the Station Master's office and the new, metal-framed windows. The room tablets (i.e. small signs) were metal. A new platform scale is in service. The underneath of the platform awning, known as the soffit, is unlined. The ticket window is located immediately on the left side of the man. The platform seat appears to have been in that position since the station opening in 1919. Its base is formed by a set of inverted steel "U" brackets. It contrasts with the new style of platform seats provided with the 1957 Broken Hill station. Image No. 027880a, ARHS Resource Centre.

THE THIRD DESIGN CHANGE - 1942

William Beaver on 1st September 1942 approved an amendment to his two approved 1941 plans. Now asbestos cement sheets, 3/32-inch-thick, in ten feet lengths (and three feet wide) were to be applied to the external walls above the windows sills in lieu of weatherboards. Asbestos cement cover strips were applied especially to the horizontal joints in order to reflect a snippet of Inter-War Functionalist style with its strong horizontal emphasis. This was only the third time where the external walls of a platform building featured the combined used of weatherboards to window sill level or thereabouts and asbestos cement sheets above – the two previous examples being in 1938 for the refreshment room extension on No. 1 platform at Goulburn and for a 12 feet by 10 feet out of shed at Epping in 1940. There had been a third example, approved in 1939, but this related to the off-platform building at Captains Flat.

Mark Davidson, the Parliamentary Member for Sturt, made representations about the delay in providing a new station building at Menindee. The Commissioner for Railways replied in August 1942:

> "I have your letter of the 11th instant regarding the replacement of the railway station at Menindee and desire to inform you that on the 14th August 1941 I approved of public tenders being invited for the erection or a new station building. One tender only was received, and it was accepted on the 24th October last for completion of the work within ten weeks from that date. The successful tenderers wrote advising that, in view of previous contracts accepted by them, they could not commence the work at Menindee until March 1942. A further communication was received stating that they were prepared to start the work in April 1942 but, in view of the attitude adopted by the firm and the difficulty in obtaining replies to letters, it was decided to cancel the contract and they were notified according on the 4th instant. It is proposed to carry out the work departmentally and arrangements are now in hand for an early start to be made".[143]

The Department might have made "an early start" in 1942 but the work was not completed until 15th May 1944.

DESIGN FEATURES OF THE PRESENT PLATFORM BUILDING

The features of the building were:

- Building is 70 feet by 13 feet,
- Use of concrete piers to support the structure,
- External walls originally a combination of weatherboards and asbestos cement sheets,
- Room designations from the Sydney end were: ladies' waiting room and toilet; general waiting room; combined out of/parcels room and Station Master's office (with ticket window).
- Absence of ceiling or wall linings in the out of room,
- Concrete floor in out of room, ladies' waiting room and toilet – remainder had timber floors,
- Uncluttered, hipped roof,
- Absence of soffit under platform awning,
- Fixed seating in ladies' waiting room,
- Sign showing "tickets" in gold lettering above ticket office window,
- Small tram rails used for platform edging at rear,
- Concrete ramp to out-of room at Sydney end, &
- Shed at Broken Hill end for fish and apricot traffic.

Some of these features have disappeared.

THE FREQUENCY OF THE USE OF THE COMBINATION OF WEATHERBOARDS AND ASBESTOS CEMENT SHEETS

[143] *Barrier Daily Truth*, 20th August 1942, p. 2.

While asbestos cement sheeting, timber weatherboards and Masonite were used individually at many stations, the combination of materials for external walls was rarely applied to platform buildings. The use of asbestos cement sheeting had many benefits, including low cost and minimal maintenance but it had one major drawback. It was so easy to punch a hole through the sheets and, with those staff who were in the habit of throwing parcels and other objects across platforms, the building walls were unable to sustain a battering. There were two locations where the external walls featured more than one material - at Menindee in 1941 and at Blandford in 1948. A male toilet was approved in 1952 and built in 1953 at Tarana using the combination of materials. There was an attempt to use the combination for a 12 feet square booking office at Werrington in 1954 but the work did not proceed. There were also small, combined signal box/ticket offices erected at Emu Plains and Mount Ku-ring-gai, both approved in 1955 and both built in 1959. The last time the weatherboard/asbestos cement sheet combination was approved was in 1961 for a fettlers' amenities building at Mortdale.

PROPOSED ADDITION - 1952

Reginald Pennefather, who was the then Chief Civil Engineer, approved on 1st September 1952 a proposed 17 feet 5 inch extension of the existing building at the Sydney end. The objective was to provide a new lamp room and a new, on-platform male toilet. While the male toilet was erected, the lamp room was not built.

ELECTRICITY CONNECTION – 1962

The electricity was connected to the station, the rest house and six staff residences in 1962.

SIGNALLING AND SAFEWORKING HISTORY BY GRAHAM HARPER

There isn't much to say about Menindee. The interlocking prior to the opening of the Darling River bridge hasn't been documented anywhere, but would have been rudimentary, with probably a single up home signal, with a workable distant signal thrown in. This would have been in accordance with the common arrangements for newly signalled country termini in 1910.

The signal box and full key locked interlocking was probably brought into use in conjunction with the Darling River bridge and the opening of the line eastward to Ivanhoe. The bridge presented a challenge for interlockers as it also carried the roadway and the bridge deck had to be raised for the passage of river traffic. The interlocking had to keep these two streams of traffic clear of the trains. Suffice it to say, all of this was achieved by the manipulation of a number of Annett keys. For the curious, the exact working is detailed in Circular 668 of 1927 [Track and Signal Diagrams DVD reference #13301].

Interlocking-wise, apart from the bridge working, Menindee spent its life as a very ordinary key locked crossing station albeit with five additional signals and a wharf siding. There was nothing of any great interest here.

The original signal box is shown on working sketches as being located at the Sydney end of the station building and a separate structure. However, in 1928, successive working sketches indicate that the box was moved to the Broken Hill end of the main building, also as a 'cheap timber' structure. The proposition that the new station building of 1944 absorbed the signal box sounds reasonable.

All the diagrams showing the 'new' box show it as virtually abutting the station building. Now if the station building were to be replaced, the need for two outside walls virtually touching each other would be called into question. In favour of this supposition, there is the roof which appears to have been designed to cover the box. Against it is the fact that the platform awning does not extend for the full length of the signal box, although it does provide cover for the entrance door. And if you blow up photos of Menindee, you can see a suspicion of a difference in the weatherboards on the box and on the main building. None-the-less, I think it probably happened in 1944.

Menindee was the last Electric Train Staff post on the line, with ETS being worked on sections as far east as Ivanhoe. This arrangement came to an end in 1954, when the safeworking was converted to Ordinary Train Staff and Ticket.

In 2001, the safeworking system was upgraded to Train Orders, backed up by global positioning. The arrangements at Menindee now consist of a crossing loop and a goods siding, two home signals and two location boards and even the road–rail bridge with its operable lifting span is no more. The two home signals work automatically, while train crews perform any necessary safeworking, which these days basically means tearing through the station at maximum line speed, unless a crossing with another train is scheduled.

MORE RECENT ALTERATIONS

In recent times, there has been an alteration to the external walls. The original asbestos cement sheets above the window sill level have been covered partly by aluminium cladding. However, the original position of the asbestos cement sheets and the weatherboards survive on the rear wall. Also, the ticket window has been replaced and the Bankcard sign removed.

Gary Hughes took this photograph on 2nd June 2017. The original weatherboards are those below the window sills. The replacement of the original asbestos cement sheets above the sill level with aluminium siding, though with a contoured profile, occurred sometime between 1985 and 2000. Note the colour scheme applied to the station nameboard. Surely, the paint scheme is incorrect and should be black and white? No. starting in 1951, the traditional colours used by the Department started to change and the use of creams, browns and yellows were widely used. Thus, the choice of paint colours is probably authentic. The galvanised, roll-top fence was installed in the 1960s. Fencing was originally provided at only the Sydney end of the platform and consisted of a single rail.

Thanks very much to Dr. Bob Taaffe and Graham Harper for help with the safeworking arrangements.

Stuart Sharp, Paul Horder and Gary Hughes

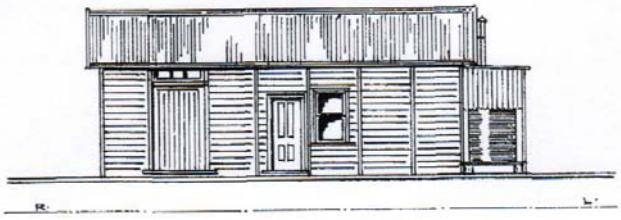
16th April 2019

APPENDIX

— Station Building —

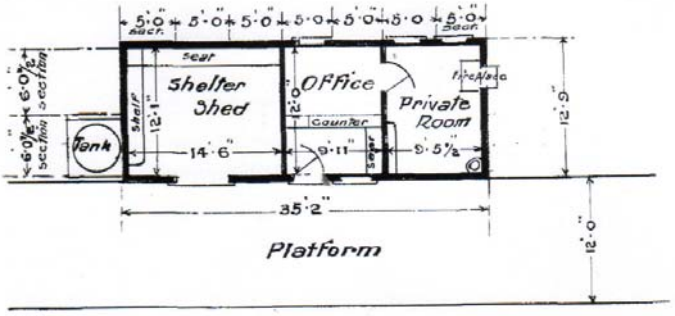
— Scale: 16 Ft. to 1 in. —

Wm. Hutchinson
30.1.17



— Elevation —

— Section —



— Plan —

"NOT EQUALLED ANYWHERE IN N.S.W."

THE MAGNIFICANCE OF THE NEW BROKEN HILL RAILWAY STATION, 1957

(AND ITS SUBSEQUENT DESIGN MISTREATMENT)

Gary Hughes lived in Broken Hill between 1947 and 1949 inclusive. Since his departure, he has made 48 visits to the city using various transport modes and continues to visit the place three times a year. On 13th October 2010, Gary was standing in Crystal Street looking at the station. The above image indicates what he saw. The vista has changed considerably during his many visits and, in the image and at present, the station is harsh-looking and needs a considerable dose of sympathy. The additions to each end of the building in 1969 ruined the original symmetry of the once attractive 1957 structure and the designers made the situation even worse by the stony-hearted use of non-matching bricks. The former attractive vegetation surrounding both sides of the 20 entry steps has been removed and replaced by ugly concrete and, in 2006, the even uglier access ramp on the right-hand side of the steps has ruined the visual experience. Could things get worse? Yes. On the left-hand side of the steps are two murals portraying non-Australian railway scenes. In this image, Gary has gone to considerable effort to hide the murals behind the yellow pedestrian sign. They are an expression in ultimate ugliness and desecration of the heritage values of the building. There is at least one positive factor. Now, the station looks like a typical 1960s New South Wales station building whose dominant cultural feature was a functionalism dictated by the ruling engineers in the Way and Works Branch. It was a time when the railway architects were mostly ignored and where their contribution was considered an unnecessary construction cost. The very neglect of the architectural features of the original design demonstrates the ferocity with which engineers exercised their zeal to minimise expenditure. Of course, it was not their fault. The capital sums made available by New South Wales Governments of all colours during the second half of the 1940s, the 1950s, 1960s and 1970s were grossly insufficient to modernise every aspect of the State railway system.

WHAT THIS ESSAY COVERS

This essay covers the history of the present railway station from the announcement in 1954 of the replacement station to the present. A separate essay has been prepared dealing with the history of the previous Broken Hill terminus before 1954.

The goal of this essay is, firstly, to describe the importance of the 1957 building in the history of NSW railway station architecture and NSW railway history generally. The structure represented the very last example of a station building designed and built with care and craftsmanship. It constituted the end of elegance and the end of the long-held belief that visual charm was just as important as economy of construction. The building was the very last time that the Railway Department designed a structure to reflect the status of the place served by the station.

The second goal of the essay is to chronicle the unsympathetic manner in which post-construction alterations have been carried out to the station, not only to the building but to the platform and to the garden landscaping. After the 1970 additions, the 1957 building lost its observable relationship to the city and was viewed as a functional item of infrastructure coupled to the melancholy tale of the grossly under-funded Department of Railways. In just 13 years from 1957 to 1970, the age of craftsmanship and care had given way to the age of financial crisis and carelessness.

THE EXPLANATION OF THE TIMING OF THE NEW STATION

The title of this essay was a comment made by the then Minister for Transport, Ernie Wetherell, that the station building opened in Broken Hill in 1957 was a quantum leap above anything else that had been built in New South Wales in the 20th century. He was largely correct.

How did the construction of the new station occur when it did? It is fairly easy in 2019 – the centenary year for the opening of the first section of the line between Menindee and Broken Hill – to postulate that construction of the present railway station building currently in use was either related to the direct influence of the then Minister for Transport, Ernie Wetherell, who was a long-time resident of Broken Hill and was related to the ongoing community pressure for a new station following the release of the report by Harold Clapp in 1945 on interstate railway gauge unification, as late as August 1954 in local newspapers.[144]

Neither explanation is correct, though both explanations did contribute to the decision to build a new station. Here is a hint. The announcement that the Government would fund a replacement station was made within one week after the arrival of a regal visitor.[145] It was the visit in March 1954 by Her Majesty, Queen Elizabeth II, that was the driving element in the decision by the New South Wales Department of Railways to build a new station in Broken Hill to replace the crappy-looking, concrete unit structure that had existed from 1919. No! The Queen did not use the railway system to reach

[144] *Sydney Morning Herald*, 21st August 1954, p. 10.

[145] The Queen visited Broken Hill on 18th March 1954. The announcement was being discussed by the press in 25th March 1954. See *Barrier Miner*, 25 March 1954, p. 3.

Broken Hill and she did not even go near the railway station. It was the simultaneous visit by the State Governor, the State Premier, the Minister for Transport and the Railway Commissioner for the royal tour that realised the pathetic looking building that acted as a gateway to the city was a disgrace. Never before in the history of the city had all these very influential people visited Broken Hill at the one time. Immediately after the royal visit, rumours circulated throughout Broken Hill that a new station would be provided. The rumours, for once, turned out to be correct.

THE START OF THE RUMOURS

The residents of Broken Hill were pretty sceptical about the actuality of receiving a new railway station. They were used to promises being made by the New South Wales Government and never met. Take, for example, the letter to a local newspaper in August 1954 from a frequent contributor who wrote under the pseudonym, Ripples. He or she described Broken Hill as "a land of unfulfilled promises". Ripples mentioned quite a few projects that had involved a lot of talking but without any action and he or she expressed doubt about the announced commencement of work for the new station by the end of the year. Ripples wrote: "it is to be hoped that whoever is in charge of the building of the station is many times faster than whoever is in charge of the Cockburn Road (improvement) or this project will fall into our bag of unfulfilled promises".[146]

Seven months after the rumours of a new station started, the Department of Railways issued an official press statement which promised that the construction of the new (i.e. current) railway station in Crystal Street was expected to start before Christmas 1954. That optimism was ill-placed, and it would be another two years before work commenced and three years before the new station opened. Stupidly, the Department said that local tenders would be called "to expedite the work".[147]

[146] *Barrier Daily Truth*, 2nd August 1954, p. 7.
[147] *Barrier Miner*, 15th October 1954, p. 21.

This image taken on 13th October 2010 by Gary Hughes emphasises the considerable degree to which the New South Wales Department of Railways considered the location for the new station. In 1919, the first station was positioned on the edge of the city, but the Department was not going to repeat the error for the replacement building. The preferred location plonked the new building entry in the middle of Chloride Street, thus making the station highly visible from a long distance. This feature of making stations visual blocks along street corridors was popular in the 19th century at places like Ashfield, Bathurst, Temora and Wagga Wagga. After 1893, the architectural device was not used again until the replacement building at Broken Hill – over 50 years later. Now that tells you about the significance of the station structure and the importance of the economic contribution of the city. The use of multiple entry steps was a design feature which encouraged the observer to look upwards to gain a view of all the stylistic features, which included the clock, the four flag staffs and the title of the structure. Unfortunately, the steps made access difficult for those with mobility troubles. Note the lack of management in relation to the maintenance and painting of the pavement at the bottom of the steps.

OPTIONS FOR THE LOCATION OF THE STATION

The then Minister for Transport, Ernie Wetherell formally advised the Parliamentary Member for Sturt, William Wattison, in October 1954 that the new, "central railway station" would be built in Broken Hill. The word, "central", was a wise selection as it had been used frequently over the preceding three decades to emphasise the lack of convenience of the 1919 station. Wetherell described the proposed building as "of a design worthy of the city". He was a little more cautious

than the Commissioner and said that “preliminary work” would commence before Christmas. Wetherell was no doubt sympathetic to the needs of the city and the western region generally as he had lived in Broken Hill for over 30 years was the Member of Parliament for Cobar, which was the adjacent electorate.

The new station would be situated in the transhipping yards area and be “in a position handy to transport to the Silverton Tramway”. From the Minister’s letter, it would seem that Wetherell and Wattison had been in discussions for some time previously about the need for a new building, referring to “disappointing delays” that had affected the project. This must have referred to discussions they and others had had in March of that year during the Queen’s visit.

Wetherell indicated that “much research and examination of possible requirements, in the event of the construction of the much-supported uniformity of gauge line being constructed, became necessary after our visit to Broken Hill in March, and the exact site, particularly with respect of this consideration, required careful planning and consultation. The site decided upon is at the line-of-lode end of Chloride Street and will squarely face Argent Street. That is to say the centre of the building will be in the centre of Chloride Street - a construction that will be worthy of our city. The position is set out in the enclosed communication tome from the Commissioner for Railways”. The use of the term, “our city”, was a reminder that the Minister had been living in Broken Hill between 1911 and 1949 and may have continued to live in the city while he was the Member for Cobar.

The Commissioner for Railways outlined the two schemes that had been examined in regard to the proposed location of the new station. The details of the two schemes are set out below in a letter to the Minister for Transport.

SCHEME “A”:

“Construction of a new passenger station in the present transhipping yard adjacent to Crystal Street and opposite Chloride Street, approximately 30 chains from the present Broken Hill Station. This will require some alterations to the present transhipping yard tracks and will provide a station conveniently placed, together with direct access to bus and road and only 30 chains distant from the present Silverton Tramway Sulphide Street Station. The location of the new station opposite Chloride Street will permit suitable architectural treatment in conformity with the desires of the Broken Hill Council. Provision has been made in the layout for the construction in the future of a three feet six inch gauge line from the Silverton Tramway Company's goods yard to the new station facilities. This would necessitate the resumption of a strip approximately 20 feet wide along Crystal Street between Oxide and Kaolin Streets to avoid interference with the present goods transhipping yard. Should, however, the four feet eight inch (sic) gauge line be extended beyond Broken Hill, the extension could be constructed within the limits of the present transhipping yard and avoid the encroachment on Crystal Street.

SCHEME “B”:

This proposal provides for the construction of a standard gauge line from the Parkes end of Broken Hill Station yard (at 698 miles 13 chains) parallel to the existing three feet six inch gauge Silverton Tramway Company's line for a length of approximately 1 mile 20 chains to a new station opposite the Silverton Tramway Company's Sulphide Street Station between Sulphide and Bromide Streets. Due to limitation of the area available, this site will not permit of station buildings or staff facilities being erected and a common transhipping platform would not be practicable without reconstruction of the Silverton Tramway Company's station. Resumption would be required between Blende and Beryl Streets and some disturbance caused to business premises located adjacent to the narrow gauge tracks in this area and to goods handling facilities adjacent to Sulphide Street station.

The number of level crossings involved in this scheme would constitute an extremely undesirable hazard. My officers and I (i.e. the Railway Commissioner and his staff) favour Scheme "A" and, subject to your concurrence (i.e. Ernie Wetherell), I have approved of the new station as proposed in Scheme "A" being proceeded with. To this end, the necessary survey will commence shortly followed by a commencement of the earthwork. So far as the actual station building is concerned, you have indicated, and I agree, the building should be in keeping with the important architectural and design work of the city and the necessary work will take some little time. As you are aware, architects and design engineers are difficult to obtain but you may rest assured that no avoidable delay will be allowed to take place in the carrying out or this work. In connection with the station buildings, it is proposed to call local tenders for this work, which should expedite its completion".[148]

As we all know, Scheme "A" was adopted.

Pressure during 1956 by the Broken Hill community for construction of the new central station was sustained and encouraged by the establishment of a joint Commonwealth Parliamentary Committee under the chairmanship of Billy Wentworth, which recommended later that year the construction of standard gauge lines to Melbourne and beyond Broken Hill to the South Australian border. Legislation was speedily passed in 1958 to give effect to these proposals. [149]

The new station was well-placed in Crystal Street and accorded with the pattern of the streets in the city. It presented a visual end block when seen from a distance in Chloride Street.[150] It was a pity that, on the rail side of the station, a huge mullock and slag heap dominated the visual perspective from the platform.

[148] *Barrier Daily Truth*, 15th October 1954, p. 2.
[149] *Australian Railway History*, April 2012, p. 4.
[150] A photograph showing the relationship of the station to the streetscape is in W. McNally, *To Broken Hill and Back*, Camberwell, Widescope International Publishers, 1975, p. 36.

Several facets of the 1969 and 1970 changes associated with the uniform gauge opening were architecturally harmful to the station building. However, there was one aspect that demonstrated some good thinking had taken place. When the platform was extended in the direction of Adelaide, the platform was formed to serve a back platform road under the name of a "Platform Shunting Neck". By the alignment of the track to serve the back platform, provision was made to allow easy cross-platform changes between New South Wales and South Australian passenger trains. While such thinking was most admirable, the back platform was rarely used for cross-platform passenger transfers. As is seen in another image, South Australian trains used the main platform. Image by Gary Hughes on 6th December 2010.

THE DESIGN FEATURES

The 1919-opened station "was replaced on 4th June 1957 by a more worthy cream brick edifice, built to a typical 1950s style design".[151] Was the design typical? Let's see.

Norm Vogan was the Chief Civil Engineer of the New South Wales Department of Railways at the time and he approved the plans for the new railway station on 3rd November 1955. It had taken 20 months for this approval to occur after the initial announcement that the new station would be built and had taken 13 months after the announcement that work would start before Christmas 1954. No wonder the Broken Hill residents were sceptical of any promises made by politicians and public servants in Sydney.

From 1929, the Department of Railways had been using what is today called the Inter War Functionalist style of architecture, which was a very stripped-down version of Art Deco design. The last examples of that style that were built had been approved in 1949 and there was, during the 1950s, a void in the dominant style, or any style for that matter of fact, of design used for railway

[151] No author, *Silver City Explorer*, Canberra, ARHS, 1992, p. 64.

station buildings. By the time it was necessary to design the building for Broken Hill, the Inter War Functionalist style was no longer used by the New South Wales Department of Railways.

What replaced the Inter War Functionalist style? Not much. It is a fair thing to say that the 1950s and the first half of the 1960s was an architectural desert so far as station buildings were concerned. In the early 1950s, many low-cost houses were being built using timber frames and asbestos cement sheeting. The use of a single-pitched roof contributed to their low-cost. Many of these survive in coastal towns as they enabled people to live in Sydney to build a fairly cheap holiday structure by the seaside. The use of skillion roofs was not restricted to houses and the most well-known example occurred in 1961 when the overseas shipping terminal at Circular Quay featured the same roof design, which it retains in 2019. The use of the single-pitched or skillion roofed station structures emerged slowly from the 1940s but, this time, the roof styles applied to larger buildings, including that at Broken Hill.

The application of single-pitched roofs on New South Wales station buildings had a long history. It was in use from 1855 until 1889 for single room waiting sheds. From 1889, the direction of the roof pitch changed and from that year the roof sloped towards the railway line. The design was used for structures containing one, two, three or four rooms but of narrow width. The construction of timber buildings with skillion roofs was prolific between 1889 and 1914 but faded out of use from World War One. For the next 30 years, very few structures were approved with skillion roofs and these were virtually entirely for one room affairs.

During the 1940s, the Inter War Functionalist style was the dominant form of station design but the occasional example of a timber structure with a skillion roof started to reappear in the 1940s. Three different Chief Civil Engineers approved the use of the cheap-looking design. Firstly, the then Acting Chief Civil Engineer, William Beaver, had approved the use of a single-pitched roof design, the same that was ultimately applied to Broken Hill, at Leightonfield in 1941 and for a small waiting shed at Minnimurra in 1943. Secondly, Albert Fewtrell, the Chief Civil Engineer, had approved the same design, with the pitch of the roof sloping to the rear of the structure at Towradgi in 1948 and again at Towradgi in 1950. Fewtrell also approved the use of the same design for use at Waverton in 1948 for a waiting shed. Thirdly, Norm Vogan had applied the concept at Dora Creek in 1954. The only large examples of the single-pitched roof were those at Leightonfield (1941), Dora Creek (1954), Lapstone (1961) and at Loftus (1963). Was the style applied to Broken Hill the dominant architectural form for stations in the 1950s? That's a hard question to answer as so few stations were rebuilt in that period, but the use of single-pitched roofs won the contest with competing architectural styles by default as there was no other design contender.[152] Thus, the roof form as used at Broken Hill was consistent railway practice, though it harked back to olden days.

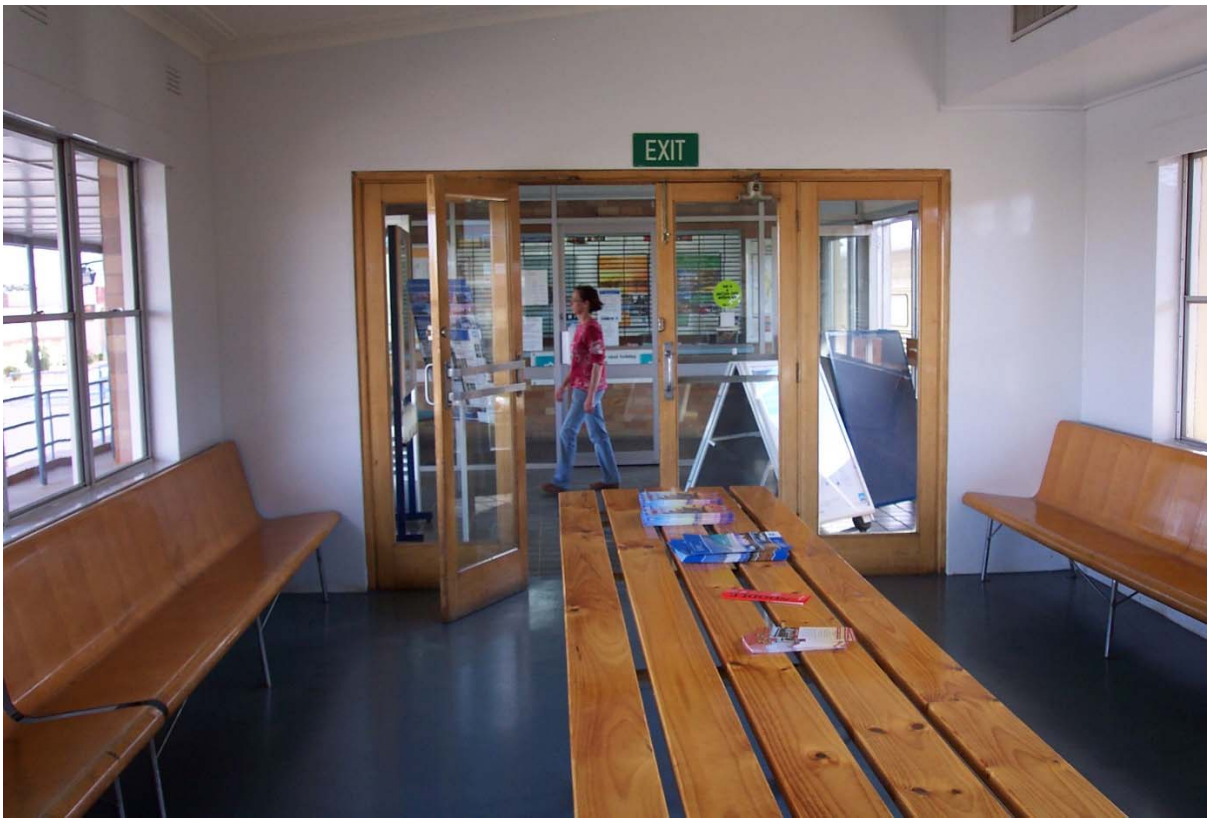
One comment needs to be made about the use of the single-pitched roof at Broken Hill. From the rear, this roof style looks decidedly unattractive and the Railway Department architects realised that

[152] The one caveat was the completion of the platform buildings at Clyde and Granville in 1960 which accorded to the Inter War Functionalist style, which had been both approved in 1949.

this would be a major problem considering the large size of the roof. In order to make the roof attractive, the architects provided a large pediment off-centre to the left of the entrance leading from Oxide Street. This achieved the objective of breaking up the large expanse of the uniform pitch of the roof and also provided a basis on which to install the clock and the flag staffs. It worked. The roof parapet provided a high degree of attractiveness of the structure from the adjoining Crystal Street.

The design features of the new building for Broken Hill were:

- Dominant use of single-pitched roof (largest skillion roof of any NSW platform building),
- Off-centre roof pediment,
- Part two-level design,
- Clock and four flag staffs,
- Lawn and shrubs landscaping in forecourt,
- Out-of room included in main building,
- Moulded Plywood seating and Oregon table in general waiting room,
- Multiple step entry,
- Office for 'transhipping agent' on lower level,
- Corrugated steel sheets on roof,
- Rendered brickwork on roof parapet in front,
- Fibrous plaster ceilings,
- Ramped access to parcels office,
- First use of stainless steel for a toilet urinal,
- Internal walls cement rendered,
- Metal-framed windows,
- Face brickwork,
- Site aligned to enable distant vistas of the station,
- Extra-wide entry stepway to assist in dramatizing public access to the station and ocular interpretation of the building,
- Ornate platform light poles – and at bottom of stepway,
- Decorative posts supporting station nameboard,
- Three-rail pipe fencing along rear of platform, &
- Timber doors on platform side serving the parcels office with traditional goods shed diagonal tongue and groove timbers.



This photograph taken on 18th November 2006 by Stuart Sharp shows some of the modern features that were incorporated into the 1957 building. Included in this category were: the moulded plywood seating; the steel-frame table capped by varnished Oregon timbers; the full-glass door and adjacent glazed panelling; the polished aluminium push bars on the doors; the pastel pink wall colour; the blue-coloured vinyl flooring and the use of tiles for the entry vestibule. Behind the lady is the ticket office. It would be noted that an unsympathetic addition was the use of glazing in an aluminium frame to enable the booking office to be locked when unattended. The grotesque utility of the aluminium framing contrasts with the attractiveness of the timber door frame and adjacent glazing which encloses the general waiting room. One should be a little careful in one's criticism as the observant reader will note the presence of aluminium framed windows on both sides of the structure.

The layout of the building from the Sydney end at platform level was:

- signal box,
- communications equipment,
- parcels office,
- Station Master's office,
- booking office,
- main entry foyer,
- general waiting room,
- female waiting room and toilet, &
- male toilet.

At the basement level, the rooms were from the Sydney end:

- store,
- Electrical Mechanic's office,
- Transhipping Agent's office,
- Sign-on Room,
- Meal Room,
- Locker Room, &
- Toilet

As originally planned and as was normal practice for the New South Wales Railways, there was no door over the entrance to the male toilet. However, early experience of the facility's misuse by unknown miscreants prompted the Department to install a galvanised pipe gate across the entrance one month after the station opened in 1957.

This image by Gary Hughes on 13th October 2010 shows the same colour bricks used in the ramp retaining walls as were applied to the 1957 building, confirming the existence of the ramp in the original design. Note how the blonde-coloured bricks used for the parcels extension have been extended beyond the roof pediment almost to the pedestrian entry. This addition went a long way to ruining the symmetry of the original structure. The elimination of the gardens facing Crystal Street is also notable.

COMMENTS BY THE LOCAL PRESS AND OTHER MEDIA

The *Barrier Miner newspaper on 4th June 1957*, (p. 1) described the building as "imposing". The State Premier opened the new station at Broken Hill on 29th May 1957 but the *Barrier Miner* newspaper says that the opening took place on 4th June. Both dates are correct. The 29th May was the date of the opening ceremony. *Weekly Notice No. 22* of 1957 states that "the new station will be brought into use on Tuesday, 4th June 1957".[153]

Some 1,500 people attended the opening. The Minister for Transport, Ernie Wetherell, said that the Departmental view was that Broken Hill people did not appreciate what came to it. The Railway Commissioner, Neil McCusker, asked more people to use the rail service. The Barrier Industrial Council said the building fulfilled a 'long felt need' and that it was now a station to be proud of. It was built by a local firm, Constructions [Broken Hill] Pty Limited and, as a sign of the modernity of the structure, the Department emphasised that "modern pastel colours used internally to provide a gay and cooling effect". Although that did not seem to be a big-time statement, it was important to the Department as it was an indication that the organisation was walking away from the traditional paint schemes that had been applied to New South Wales station buildings from 1855. The ceiling cavity used 'slagwool' bats for insulation while the inside skin of the walls was made of locally made concrete bricks, though the external skin of bricks were clay. The occasion involved one of the very rare uses of an artist's impression of a structure prior to construction. That itself was a sign of the importance of the Broken Hill building.

The Barrier Daily Truth, 5th June 1957 (p. 1) said that a crowd of 1,500 people attended the opening ceremony. The local Parliamentary Member, William Wattison, said that it was Ernie Wetherell who "had been responsible for the new station". The Mayor said the structure was "one to be proud of" and expressed the hope that the narrow gauge and standard gauge lines would be "linked". That was also the view of other organisations at the ceremony.

The President of the Chamber of Commerce presented a view which could be found in newspapers in many country towns and cities over the previous hundred years. Leaders of rural places wanted their station to reflect the up-to-date character of other public and commercial buildings in their centres as well as reflect the modernisation of the place as a whole. In this case, he stated that "the new station was in keeping with other modern buildings in that section of the city". That was exactly what Departmental officers wanted to hear, though they rarely provided sufficient capital to allow that to occur in the 20th century. Even H. Wilmot, representing the contractors – Constructions Limited – said he was proud to be associated with the building.

[153] *Weekly Notice No. 22* of 1957 (1st June to 7th June 1957) p. 16 indicates the relocation of the station from 698 miles 41 chains to 698 miles 69 chains on 4th June.

The industry magazine, *Railway Transportation*, published a lengthy article as well as photographs and a track plan of the new station. It stated:

> "To accommodate the new station, portion of the main line leading to the transfer sidings has been slewed into a new position, and the old wartime oil siding has been removed. The new station consists of a long single face platform, 593feet in length and about 10feet wide, with station buildings and entrance centrally located. The platform road is provided with an engine dead-end with a run-round connection to the main line. On its Crystal Street frontage, the station is a two-storey structure with main offices on the platform level and staff amenities are located in the basement under the main building, opening on to the Crystal Street level. The main entrance to the station, from Chloride Street, consists of two flights of easily-graded steps, flanked by lamp standards and gardens. Accommodation on the platform level includes a generous entrance vestibule leading to booking office and waiting rooms, Station Master's and communications office, signal box and conveniences.
>
> The internal colour scheme uses modern pastel tints to produce a gay and cooling effect, and the main offices have vinyl tile floors. Plenty of space has been set aside for the parcels office. In addition, to the main passenger entrance, a convenient vehicular ramp rises up from the Crystal Street level to a terrace giving access to the platform and station offices. Station foundations are of reinforced concrete pier and beam construction carrying concrete floors and brick walls. The roof is cantilevered to form the platform awning and is covered with corrugated iron with slagwool bats. Inside walls are formed of locally made concrete bricks, with external walls faced with light red bricks, which add to the attractive appearance of the building".[154]

A reproduction of the artist's impression was published in *Railway Transportation*, July 1957, p. 22.

THE HIGH STATUS OF THE NEW STATION BUILDING

The new station was the most expensive above-ground platform building erected since the opening of the third Sydney station in 1906. The indicators of the high level of significance of the structure were:

- rarity of railway station buildings constructed between 1945 and 1971,
- large size of building (largest above ground building erected since 1906),
- use of part two-storey construction (not used after 1881),
- provision of a clock (one of only three stations with clocks),
- use of large letters above entrance stating "N.S.W. Railway Station" (subsequently removed),
- existence of flag staffs (one of only two stations with flagpoles),

[154] *Railway Transportation*, July 1957, pp. 32-34.

- dramatic use of multiple steps to access platform (rare use of steps from road approach),
- possible first use of new style of timber and steel platform seats (later to become standard seating),
- use of special materials, such as Plywood seating and stainless steel urinal, &
- strategic location opposite Chloride Street (first station since 1890 be so located).

THE ONE MAJOR DESIGN BLUNDER

While the existence of multiple steps to enter the structure from the street gave a dramatic visual excitement on the approach to the building, the steps were more of a visual than practical use. Very few people enjoy climbing multiple steps, particularly when there was an alternative and this was the case at Broken Hill. An easily graded ramp was constructed from Crystal Street at the Sydney end of the building to the luggage and parcels office and this quickly became the principal method of accessing the station building. This trend continues in 2019. Private motor cars, taxis and even buses use the inclined ramp.

The undated photograph above was taken by G. Dorman and shows some original and recent features of the station. In the original category is the station nameboard which is attractively shaped at the ends and is supported by three timber posts which have been elegantly fluted on all faces. It remains in position in 2019 – hopefully. When the building was extended in 1970, the original fencing at the rear of the platform was replaced by the role-top galvanised wire fencing, which was extremely popular with the Department of Railways. It did not need painting and did not rust. The one design blunder of the station was the 20 steps from Crystal Street to the entry foyer. The ramp on which the bus is located was provided in 1957 and has become the main access to the platform for both pedestrians and vehicles. The light standard is new and was erected as part of the 1970 "improvements".

PLATFORM CONSTRUCTION

The concrete surface of the platform and the platform wall were undertaken by the staff of the Department of Railways using the traditional form of a framework of old railway lines and concrete poured in situ. The profile of the platform wall and coping accorded to the then Departmental practice. As well, an extended coping was cantilevered towards the railway line – a practice first introduced in the mid-1930s with the objective of providing a hidey-space for anyone caught on the track with a train approaching. The traditional ramps that usually are associated at the end of platforms were omitted. This had been a trend that had started at Wiley Park in 1935. All platforms on the 1939 Cronulla line were without ramps. In 1942, the idea of a half-width ramp was introduced on the western line quadruplication project between Westmead and Seven Hills to permit the use of parcels barrows between the twin island platforms. Broken Hill station accorded with the prevailing policy. Steps were provided at platform ends. When opened in 1957, the station platform was 593 feet (180 metres) long but was extended in 1969 to 1,200 feet (366 metres). This made Broken Hill platform the fourth longest in the state, being beaten only by Albury at 460 metres; Cronulla at 388 metres and No. 1 platform at Sydney Terminal at 370 metres.[155]

When the station opened in 1957, the platform wall was an "S" shape. With the opening of the trans-Australia standard gauge line in January 1970, the curve at the Adelaide end was removed as part of the work to redesignate the former dead-end siding serving the platform as the main line. However, the curve at the Sydney end remains. The platform coping was cantilevered towards the track – a design feature introduced system-wide in the mid-1930s. Another modern feature employed at Broken Hill station was the elimination of ramps

[155] Public Transport Commission, *Transport Quiz*, Revised Ed., 1978, p. 18.

at the ends of the platforms – a process that also started in the mid-1930s. Steps were used instead. The photographer was Gary Hughes and taken on 7th December 2010.

The 1957 new station was served by a dead-end siding with only a facing point at the Sydney end for access. Despite the unbelievable amount of land around the new station, the Department decided to provide a platform on a reverse curve. This was eliminated with the 1969 alterations by straightening the Adelaide end, though the curve still exists at the Sydney end. Also, in 1969, a set of points was provided at the Adelaide end and the main line then served the platform.

There was only one station nameboard, which was located between the main building and the Sydney end of the platform. It was supported by three vertical timber supports which were nicely decorated with fluting on all sides. Originally, the station name was painted on an attractive, horizontal board but this was changed to metal letters at some time before 1984. The vertical posts are now nearly life-expired, and it should be no surprise at the time of the centenary visit (to the 1919 station) in July 2019 that the original nameboard has collapsed or has new support posts. Another interesting feature is the platform seat. Although the date of the introduction of this design of steel and timber seat is unknown, they were supplied to Broken Hill station upon opening in 1957 and it is possible that the occasion was the first installation of the new platform furniture. The design of the seat contrasts to those placed on the platforms at the 1919 Broken Hill station and at Menindee station. The three-rail pipe fence is original and Broken Hill was the first time the product was employed on the NSW rail system. This undated photograph by Ken Bowen is No. 170529 in the ARHS Resource Centre.

The continual laying of ballast under the track in front of the platform has resulted in a substantial problem of access between trains and the platform because of a very significant vertical disparity.

The problem is so substantial that portable steps are used for some passenger trains in the case of people with mobility restrictions.

EXPANSION OF THE STATION - 1969

This undated photograph by G. Dorman well shows the size of the expanded building. The high-level windows on the right-hand side denote the parcels office. The pedestrian entry and waiting room is located where the large windows are positioned towards the middle of the structure. When the 1957 building was extended in late 1969 and early 1970, the demolition of the original signal box and parcels office at the Sydney end were required and, on the platform side of the structure, the Department decided to render the entire wall to cover the use of different coloured bricks, except for the new extension at the Adelaide end, which remained as face brickwork. The original platform seats are in position, but their original green paint has been covered by the almost-universal use of orange colour in the 1970s. Image No. 027889b, Resource Centre.

The enlarged (existing) railway station was opened as part of the $35 million improvements at Broken Hill on 29th November 1969 by Prime Minister John Gorton to commemorate the completion of the standard gauge line across Australia.[156] There is an obelisk in the station forecourt to celebrate the event. The 1957 building was significantly enlarged at the time with a humongous parcels office at the Sydney end which enveloped the former signal box. The extension at the Silverton end contained rooms designated for "operators, teleprinter, ladies' rest room and plant room. The building in 2019 retains the footprint of the 1969 changes. The 1969 extension at the Silverton end are now empty. The building enlargement was carried out by Keith D. Morris and Sons, which was a large construction contractor based in Sydney and Brisbane.[157]

[156] As well as the enlarged station building, a new, very large goods shed, a 40-room rest house and a new locomotive depot were constructed.
[157] *Railway Transportation*, January 1970, p. 52.

Wow! What a parcels office! The parcels office at Broken Hill was huge and not all of it is seen in the image. Only the parcel offices at Sydney Terminal, and possibly Newcastle, were larger. In 1970, when the enlarged parcels office at Broken Hill station opened, railways had a virtual monopoly on long distance parcels business. There were no such things as overnight couriers. Sadly, all parcels business ceased in New South Wales during the 1980s. It was gradual at first, but the end came by 1989. Now, the space of the former parcels office at Broken Hill stands as a monument to the more important role railways played when they were protected by legislation. Photograph by Stuart Sharp on 18th November 2006.

There was a change the use of the rooms at the basement level in 1990. At that time, the basement level spaces were:

- Signal and communications workshop,
- Carpenters' workshop,
- Station Master's office,
- Office for the Station Master's clerk,
- Meal Room,
- Locker Room, &
- Toilet.

Air-conditioning was installed in some of the rooms in 1969 at the same time the signal box was relocated to the western end of the building. There is a lovely cornice in the general waiting room, and it was sympathetically treated when the air-conditioning ducting was installed.

Unfortunately, other alterations made to the station after 1957 have reduced the heritage values of the structure, not to mention the elegance of the building. The damage was caused by:

- the extensions and alterations in 1969 obliterating the original scale of the structure,
- replacement of the uniform style of attractive, incandescent light posts along the platform with pedestrian-looking posts supporting fluorescent lights,

- the use of obviously, dissimilar coloured bricks for the 1969 extensions,
- excessive concreting of the ground surface area in the forecourt,
- cement rendering of the external wall on the platform side,
- the use of galvanised roll-top fencing at the rear of the platform,
- the removal of the forecourt gardens,
- the installation of a disabled access ramp at the side of the forecourt, &
- the use of irrelevant wall murals on the road approach.

These accretions have created an ugly monster compared to the well-proportioned and thoughtfully designed 1957 building.

This photograph was taken by Alex Grunbach in October 1969. The pallets of bricks on the left stand ready to extend the building at both ends for the January 1970 opening of the trans-Australia standard gauge line. The station looks magnificent in its original, 1957 form. Plants and shrubs are used on both sides of the stepway and attractive brick walls act as a retaining barriers. Elegant lamp-standards strike an imposing view at the bottom of the steps. The title of the building, "NSW Railway Station" adorns the top of the awning. A lovely feature of the design was the subtle use of curves in the brickwork facing Crystal Street. This was utilised at the bottom of the steps and to form the corners of the garden walls. Just visible behind the roof pediment is the metal radio disc used for transmission of official messages. The building was about to experience its first act of architectural brutality with the building extensions. Image *No. 204406, ARHS Resource Centre.*

THE SIGNAL BOXES

Dr Bob Taaffe and Graham Harper, both specialists in the history of signalling and safeworking, provide the following notes on the existence of signal boxes.

"On 28th and 29th May 1957, the signal box and signalling arrangements associated with the new Broken Hill station were brought into use.[158] A signal box, known as Broken Hill Station box, was opened on the new platform at the eastern end of the building. At the same time, the old box on the old platform was renamed Broken Hill Yard Box. A Closing Lever was installed at Yard Box, which was retained to control access to a number of sidings. However, the train staff and ticket box were relocated to Station Box. This meant, technically, sidings beyond the control of Station Box at Yard Box were in the staff section. So as to keep some semblance of order, the Yard Box Closing Key was kept by the Station Master at the new station.

The new Station Box had 24 levers, most of them spare. This was because the box only controlled signals and points at the Sydney end of the platform, although provision was made for the operation of the connections at the country end as well at some point of time in the future. The Station Box was placed out of use on 9th September 1969 and a single lever was installed in lieu until a new route set panel was ready. The 1957 signal box became the parcels office when the station building was extended at both ends for the standard gauge opening in 1970.

The second modern route set relay interlocking panel in NSW was installed in a room in the western end extension of the station building and was brought into use on 10th January 1970. On that day, the new NX power signal box was brought into use at the western end of the building. Prior to this, Station Box had been emasculated with most of its functions disconnected in anticipation of the new power box. The power box took over the functions of both Station and Yard boxes and controlled a much bigger area with direct operation of a considerably greater number of points than was the previous case. According to both Harper and Taaffe, 'this panel was a lot of fun to play with when times were quiet' (Ed. How would they know that??). The use of such modern technology would seem unusual for such a remote location. However, the yard was strung out for a long distance and it made more sense to use such a panel for a single person to control the whole yard, in conjunction with shunters, of course. No doubt someone else other than the New South Wales Railways probably paid the bill.

On 19th May 2013, the NX panel was replaced by a Phoenix Signallers' Workstation, including a visual display unit, which was installed in lieu at the Western Rail Management Centre in Orange. The NX panel at Broken Hill station was retained for emergency use. At some time later, probably before 2009, signalling and safeworking control of Broken Hill was transferred to the ARTC centre at Broadmeadow, along with the other locations controlled from the Western Rail Management Centre in Orange."[159] In 2019, the 1126 kilometre post in the yard at Broken Hill divides the Australian Rail

[158] *Weekly Notice No. 21* of 1957 (25th May to 31st May) p. 22.
[159] Emails from Bob Taaffe dated 27th February 2019 and from Graham Harper dated 1st March 2019. and *Bulletin*, July 2003, p. 272.

Track Corporation the control point, with Adelaide controlling west of the post and Junee controlling east of the post.

This photograph taken after 1970 shows the building extension at the Adelaide end, which has been left unpainted. The windows at the head of the railway worker are, importantly, those of the male toilet. The remainder of the building wall on the platform side has been rendered and painted to hide the mutilation associated with the extension of the parcels office at the Sydney end. It appears that some blue paint was left over from the wall painting and was applied to the platform seat. Undated photograph by N Hatcher and is No. 139256 in the ARHS Resource Centre.

DID THE NSW RAILWAYS NEGLECT THE TRANSPORT NEEDS OF THE PEOPLE OF BROKEN HILL?

Distinguished local historian, R.H.B. Kearns, wrote that the NSW Government was "disinterested in the affairs of Broken Hill". That view was and possibly still is widely held amongst sections of the community in Broken Hill. In essence, the belief claims that, although Broken Hill is physically located in the State of New South Wales (NSW), the NSW Government has had a history of not supplying to the local community infrastructure and services commensurate with the level of royalties paid by the Broken Hill mines to the NSW State Treasury. This article argues that, up to at least 1970, the NSW railway administration did provide Broken Hill with a fair share of resources under its control and was in no way disinterested in the city's transport needs.

It is the surviving two railway stations in Broken Hill that are important evidence that refute the totality of the mythology and popular notion that the NSW Government has failed in its duty to allocate to Broken Hill a fair share of public works and services. The surviving railway stations demonstrate that the NSW Railways did allocate more than a fair share of resources to serve the people of Broken Hill.

The NSW Government did enact legislation in 1886 (i.e. the Silverton Tramway Act) to allow the construction of a narrow gauge railway from the NSW/South Australian border to Broken Hill. Perhaps if the financial situation in which the NSW Government was placed in 1886 were much improved, the NSW Government Railways would have built and operated the railway itself. In 1886, the NSW Government faced its first deficit budget in 20 years because of the end of available rural land to sell. While the NSW Government Railways continued building lines in rural areas, it severely cut back on expenditure where possible. For the first time since 1855, there was substantial retrenchment of staff and contractors. If the NSW Government had been spiteful, it would have insisted on the selection of a standard gauge between the border and Broken Hill, not the as-built narrow gauge. After all, change of gauges occurred at every other border locations where inter-colonial railways met. When Tenterfield was considered as the place of gauge transfer with the Queensland Railways, NSW Government rejected the notion of the narrow gauge south of Wallan-garra.

In 1899, the NSW Railways secured additional capital funds, compared to 1886. With the available finance, the NSW Government acquired and managed the Broken Hill to Tarrawingee tramway under sufferance. It remained in NSW Government ownership until after 1930, despite not carrying an ounce of limestone for 30 years. The New South Wales Government even constructed a five mile long branch line to the local racecourse. The acquisition of the Tarrawingee line in 1899, when there was a bit more money available, is evidence to suggest that the 1886 Silverton railway might have had been under State ownership if the Colony's funds had been in better shape.

The NSW Government was quick to respond to all approaches from the private sector to support revenue making projects. That was evident in the 1899 legislation to acquire the Tarrawingee railway and it was also evident in 1891 when the NSW Parliament prepared a draft Bill to authorize a local businessman, John Penrose, to implement his plan for a tram serve in the urban area. He did not proceed with the venture at that stage but a second approach was made to the NSW Government in 1899 by Messrs. Bowering and Hall for a proposed urban tram system. In response to that approach, the then Minister for Public Works, E. W. O'Sullivan visited Broken Hill in 1900 and, in an attempt to beat the private sector interest, indicated that he would support a government tram system.

The Government tramway route was surveyed in 1900 and physical work started before Christmas. It was opened in 1902 and expanded several times up to 1912. The tram system was managed by the NSW Railways and two items of evidence emphasise the huge commitment it made to the Broken Hill tramway. Firstly, the system operated until 1926 and made financial deficits in all but three years. Secondly, apart from Broken Hill, the only other city in a rural area in NSW served by an urban tramway was Maitland. The Railways ceased operations partly because of the then water shortage and partly because there was an alternative bus system which was cleaner, cheaper and more efficient. One very important part of the tram project was the provision of an official residence for the Superintendent of the tram system. It was later utilized as the Station Master's residence. When constructed in 1902, it was the largest, most elegant single-storey official railway and tramway house

in NSW. Only one other house was ever built afterwards that approximated the elegance of the Broken Hill structure.[160]

The history of the railway line between Condobolin and Broken Hill is no different than proposals involving any city in NSW. For example, there was no uninterrupted North Coast railway until 1932. There were no solely urban railways in Sydney until 1890, despite Sydney then being amongst the most urban entrepots in the World. The Eastern Suburbs Railway was opened in 1979, exactly 101 years after it was first proposed. The railway to Circular Quay took 99 years to open. Even the 18 mile Galong-Boorowa branch line took 32 years to build.

The fortunes of Broken Hill were enhanced when the local Member of Parliament, John Cann, became, firstly, Speaker of the House in 1910 and, next, Colonial Treasurer in 1912. He had worked in London on the metropolitan Railway as a Porter, Guard and Signalman. He assumed key portfolios in the NSW Government up to 1916 when he resigned to become one of three newly appointed NSW Railway Commissioners. He was Minister for Mines in 1914/15 and Minister for Public Works in 1915/16. Not surprisingly, Cann persuaded the Commissioner for Railways, Tom Johnson, to visit Broken Hill and, again not surprisingly, the Commissioner told the local community of his support for a link between Condobolin and Broken Hill.

The Condobolin to Broken Hill Railway Act (No. 64), 1912, authorized construction. Work started in late 1912 at the start of World War One. Money was extremely tight but, in order to continue construction of the Condobolin-Broken Hill and other lines, the NSW Government entered into an agreement in 1916 with a firm called Norton-Griffiths to supply capital funds. The organisation actually carried out work on the line. This agreement failed and after 1917 the NSW Railways regained control as the construction authority. In 1917, detailed planning was underway and two proposals were prepared for the style of station building at Broken Hill, Menindee and the intermediate stations. In 1918, a design involving concrete unit construction was prepared and finally adopted.

Luck finally came the way of Broken Hill in the mid-1950s. In 1952, the Government Railways Act of 1902 was amended to allow political control of the Department of Railways. This was the first time politicians had control of the railways since 1888. That was the first piece of luck. The second piece of luck arrived when Ernest Wetherell, the Member of Parliament for Cobar at the time, became the Minister for Transport. Wetherell had been a resident of Broken Hill from 1910 and it is believed that he lived there in the 1950s even though the city was not within his electorate. Did Wetherell instruct the Department of Railways to build a new station at Broken Hill or was he mindful that a trans-continental railway of uniform gauge was just a matter of time? NSW had signed in 1946 an agreement to co-operate with the Commonwealth government on the provision of uniform rail gauges in parts of Australia. Was Wetherell simply acting with good intent and preparedness for the new railway which eventually opened in 1969? No! The answer was far more complex. It was, firstly, the ongoing interest in the implementation of Harold Clapp's 1945 interstate gauge standardisation

[160] That was a residence for the Railway District Superintendent at Junee in 1916.

report; secondly, the visit by Queen Elizabeth II in 1954 and, thirdly, the simultaneous presence in the city of the State Governor, the State Premier, the Minister for Transport and the Railway Commissioner that merged together for a consensus that the 1919 building required replacement. Whatever the stimulus for the Department's decision in 1954 to reconstruct the station, the Department of Railways did approve the construction of the second station. It was the most expensive station built from the time of the opening of Sydney Terminal station in 1906, apart from the City underground – all for four return train trips a week.

There are several other significant aspects of the construction of the 1957 building that establish that the NSW Department of Railways expended a lot of care and consideration in order to please future railway customers these include:

- The position at the end of Chloride Street, allowing lengthy vistas towards the station,
- Over the counter ticket sales (as opposed to the sale of tickets through a small ticket window),
- Part two-storey appearance,
- Roof parapet encompassing a clock and four flag poles,
- Integrated gardens on the street elevation,
- Metal-framed windows,
- The first use of moulded plywood seats in the general waiting room,
- The first provision of a table in the general waiting room,
- The first use of concrete bricks [for the internal skin], &
- The first use of stainless steel for the urinal in the men's toilet,

There are many notable features that demonstrate that the 1957 station was modern not only in terms of its overall design, but in regard to many fixtures, such as the waiting room furniture, the station nameboard, the clock and the light standards. One other remarkable attribute was the stainless steel urinal. This was the first installation of stainless steel urinal on the NSW railway system. Of course, stainless steel has been in rampant use in men's railway comfort facilities for over 60 years but flat stainless steel has been the favoured product for the rear wall for a long time. The urinal at Broken Hill marks the transition from the use of porcelain with individual stalls not only by the continued use of individual stalls but the continued use of the standard stall width of two feet. By 1960, individual stalls had disappeared. Image by Gary Hughes on 12th October 2010.

For the next ten years, the new station settled into a regular routine. The major change during the period on the New South Wales Railways was the complete replacement of steam train operations with diesel-electric locomotives. The section of line between Parkes and Broken Hill was amongst the earliest to be dieselised in NSW. Tenders were called in 1966 for the manufacture of carriages for the Indian Pacific train which began operating in 1970. The amount of time between the close of tenders and the start of operation of the Indian Pacific clearly suggests that the NSW Department of Railways again gave close and timely consideration to the transport needs of Broken Hill. If there was an anti-Broken Hill attitude in the NSW Railways, one would have expected an absence of forward planning and the presence of official panic.

A significant event occurred in 1968 when the NSW Parliament passed the Broken Hill to South Australian Border Railway Agreement Act [No. 59] which legislated the right of the South Australian Government to control that section of the line from the Border to Broken Hill. The control of train

operations and the supply of carriages were not the only initiatives that the Department of Railways undertook to improve railway facilities and services at Broken Hill. The platform was lengthened, the parcels office was doubled in size and a new signal box controlling colour light signals were provided. The new signaling set-up was only the second route-setting panel provided in NSW. On the rail side of the building, the external wall was rendered and painted to cover the difference in brick colours following the building extension. The platform was resurfaced in 1971.

The current goods shed was built in 1970 and was the largest goods shed outside of Sydney and Newcastle. A ten ton crane was located as part of the goods yard. Normally, cranes were limited to five tons capacity. Only 3% of all cranes were ten tons. A dock platform was built at the Adelaide end of the station to house the saloon-type carriages of the NSW Railways that were attached to most Indian Pacific services. Instead of four return train services a week between Sydney and Broken Hill, there were now six. The track between Condobolin and Broken Hill was substantially improved to provide a smoother ride.

Did Broken Hill get a fair shake of the sauce bottle? Readers may ponder on that topic.

THE 1957 STATION TODAY

When the parcels office was expanded in 1970, the project required the demolition of all that part of the walls on the Sydney side of the ticket office, identified by the second flag staff from the right. The difference in the colour of the bricks is obvious. Why, if the joint between the 1957 and 1970 components was considered so ugly on the platform side to require rendering, was not the Crystal Street side of the structure also rendered and painted? Note that the title of the structure, "NSW Railway Station", above the awning at the top of the stairs has been removed. That was probably done after the inauguration of the standard gauge services in January 1970 as there was, from that time, no need to differentiate between the Sulphide Street station and the Crystal Street station. The rounded brickwork at the bottom of the stepway survived, though the retaining wall enclosing the garden has been eliminated to make way for the disabled access ramp. Words cannot describe the insensitivity of the railway authority for allowing the mutilation of the building with the two murals depicting some fantasy scenes not associated with the New South Wales Railways. It is hard to think that

anything else could be done to the poor building to ruin its original elegance. Photograph by Stuart Sharp on 18th November 2006.

Today, the utility of the station building relies more in what it symbolically manifests than in its functional role of facilitating passenger train arrivals and departures. In 1957, all the very favourable press reports accurately described the importance of the building to the city. At that time, no one at the official opening ceremony realised that the station would be the last time the Department of Railways would parade its organisational pride, manifest its design skills and display its workforce of experienced artisans who worked with high standards.

Shortly after the opening of the building in 1957, the Department of Railways spiralled into a bureaucratic abyss where the staff was highly unmotivated because of a virtual disregard by the New South Wales Government to provide sufficient capital money to improve the attractiveness and viability of railway services. The unsightly additions in 1969 and 1970 and the other subsequent ways in which the heritage values of the station have been mutilated provides a great example of how organisational depression can be reflected in buildings. The importance of Broken Hill station now is in its contemporary architectural decrepitude and the narrative it tells rather than its historic opening in 1957.

In 2019, the main platform building is 38.8 metres (127 feet) long by 3.6 metres (11 feet 8 inches) wide and contains the following rooms from the Sydney end:

DESIGNATION	**LENGTH OF ROOM** (metres)
• parcels office	18.3
• Station Master's office	4.0
• Booking Office	4.8
• general waiting room	3.5
• female toilet	3.5
• male toilet	2.2

The platform awning extends of entire length of the building and is 2.8 metres (9 feet) wide.

The Broken Hill Family History Group now occupies the offices at the basement level of the station.

The station is currently staffed by a part-time person.

Stuart Sharp and Gary Hughes

25th April 2019

THE SULPHIDE STREET STATION OF THE SILVERTON TRAMWAY CO.

This photograph was taken by Gary Hughes in 1960. The fencing, installed when the building was erected in 1905, visible in the photograph was only a fragment of the 780 feet of similar-styled fencing that Broken Hill resident, Cliff Old, stated "completely enclosed the train while at the station with a view to efficient ticket collecting".[161] *The fencing was extended across the tracks with gates so that fare evaders could not scamper away. The concave profile of the fence is unusual – at least on the NSW Government Railway system. The locally-sourced stone is a pleasant colour, but the design was about 20 years out of date when the building opened in 1905.*

A NOTE ABOUT A NAME

There is a little confusion about the use of the names "railway" and "tramway". The Silverton Tramway Company was in fact a railway operator. The track was built to railway standards and the terminal building was a railway station, not a tram station. Why did the Company use the word "Tramway" in its company name? There is no correct answer because of the absence of evidence. The mythology states that the New South Wales Government would not allow the use of the term, railway, to be used. Why? No one knows for sure. One commentator thinks that, possibly, "tramway"

[161] Quoted in no author, *Silver City Explorer*, Canberra, ARHS, 1992, p. 62.

was forced by the Government on some private operators as a way of indicating that the lines were not owned by the New South Wales Government.[162] That attempt at an explanation is easily dismissed by the existence of several private lines in the Newcastle coalfields which were called railways.

Lew Roberts, a former General Manager of the Silverton Tramway Company, offers an explanation in his book, "*Rails to Wealth*". It would seem that the tramway name was more to do with the wording of the enabling legislation than Government policy.

The main mining centre in the 1880s was Silverton and not Broken Hill – its significance was not really apparent until about 1886. There was much activity by the South Australian Government in building its three feet six inch gauge railway onto the border at Co(ck)burn and ultimately, they hoped, to Silverton which was in NSW. However, their entry into NSW was formally refused by the NSW Government in 1885. Undeterred, the Silverton "lobby" approached the NSW Mines Minister, John Abbott, for his help. In May 1885, Abbott visited the region and stated that he held out no hope that the NSW Government would build a line to the border, but that it might be possible to use the Crown Lands Act 1884 and Tramways Extension Act 1880 to facilitate a private company to build and operate such a line.

Thus enthused, a number of companies were formed to build and operate the line, and the word, "tramway", reflecting the Tramways Extension Act, was used in their names. From here, the story gets quite complicated as to which company sought to build what, but the enabling Act, titled The Silverton Tramway Bill 1886, authorised the building and operation of a "tramway", perpetuating the "tramway" word. This Bill was passed into law on 8th October 1886, and the Silverton Tramway Company Limited became a reality in December 1886.

Early in its existence, the directors of the Company thought that they might have difficulties borrowing money as a "Tramway" and seriously thought of changing their name to The Silverton Railway Company Limited. However, the legal processes to do this were considered to be too legally horrendous, and the Company's name was left as The Silverton Tramway Limited, or simply the STC.

[162] No author, *Silverton – End of the Line*, Elizabeth, Railmac Publications, 1986, p. 8.

This 1969 photograph by Alex Grunbach shows the building from the Silverton end. Note the asymmetrical appearance and the unusual (in NSW Railways) concave roofed awning. The existence of the ventilator pipes at the western end indicates the location of both male and female toilets. The open door leads to the male toilet. The closed door was a store. In classical railway practice, the entry to the female toilet is nowhere near the entry to the male toilet and is positioned around the corner facing the rail lines. Note the palm tree, which were found at many railway installations. Image No.204402, ARHS Resource Centre.

PRIOR TO THE EXISTING BUILDING

There was a station on the site of the present location for the construction of the present structure. It was a collection of timber buildings which was transferred to Railwaytown and used for a variety of purposes.[163] For example, the former ticket office was claimed to be used as a female toilet at the Tramway Employees Club.[164] Another report in 1906 claimed that "the old Sulphide Street station has been re-erected at the west end of the tramway yard and the old partitions, having been removed, the interior has been renovated and properly fitted up for its new purpose'. What purpose?[165] As a building for the local railway institute hall.

Three press reports follow which described the present museum building.

[163] The location is also shown in various contemporary documents as Railway Town. Christine Adams of the Trust that manages the Sulphide Street Station Museum states that the correct spelling is Railwaytown and is presently the name of the suburb covering the area of the former Silverton Tramway Co. Telephone conversation to Gary Hughes on 28th March 2019.

[164] L. Roberts, *Rails to Wealth*, Melbourne, privately published, 1995, p. 157.

[165] *Barrier Miner*, 7th April 1906, p. 7.

THE ANNOUNCEMENT – NOVEMBER 1904

“The signs of the times could hardly furnish a more reliable indication of the assured prosperity of Broken Hill than is afforded by the decision of the Silverton Tramway Company to build a substantial and well-appointed railway station at Sulphide Street. Tenders have already been called for the work, which will be a costly undertaking, returnable on November 17 (1904); and when once a start is made with the building in about six months, it is thought, it will be occupied in its erection (sic). The importance of this undertaking as a guide to the prosperity of the city, and as an answer to the oft-repeated question, "How long will Broken Hill last?" cannot be overlooked, owing to the fact that it is to be carried out by a company, the operations of which are directed from a distance by men who are in a position to form a more accurate idea concerning the future of Broken Hill than is the ordinary businessman who lives here and who would never allow his transactions to be tinctured (sic) by the slightest shadow of sentiment. It may, in a word, be safely as assumed that, unless the Silverton Tramway directors were absolutely convinced of the soundness of the future of the Barrier, they would not have authorised the erection of a large and expensive building while the present primitive structure could be made to serve.

The proposed new station has been designed by Mr. E. Madge, foreman of works and buildings for the Silverton Tramway Company, by whom the plans have also been prepared, the whole work being carried out under the supervision of Mr. C. Eley, the general manager. The building will be of stone and brick, with a total length of 123 feet 6 inches; a frontage to Blende Street, with a verandah 36 feet by 7 feet and a frontage to the tramline with a verandah 97 feet by 15 feet running flush with the rail. The parcels office will be a commodious room opening towards Sulphide Street, 32 feet by 60 feet, and adjoining this will be the ticket office, 10 feet by 32 feet.

The inconvenience of having to purchase a ticket under the existing conditions is known to everyone who has travelled on the tramway, but there will be ample accommodation provided in the new station. A vestibule, 38 feet by 14 feet, the greatest width of the building, will run through from Blende Street to the platform. Ample provision being made for the sale of tickets at several windows. The gentlemen's waiting-room will be 18 feet by 17 feet; the ladies' waiting-room 26 feet by 18 feet; and the lavatory 15 feet 6inches by 9 feet 6 inches, fitted with basins, etc., and plate-glass. The vestibule and lavatory will be floored and lined with tiles. A clerk's room, 18 feet by 9 feet, will provide all necessary accommodation in that direction, and at the Bromide Street end of the building tiled urinals, 24 feet by 16 feet will be erected. The building will have Wunderlich ceilings throughout, and the waiting rooms and offices will be fitted up in an up-to-date manner. The building will also be made attractive in its outward appearance and will have four gablets (i.e. small gables), two at the centre marking the vestibule, and one at each end. Besides being an immense convenience to the

travelling and business public, the new station promises to be a worthy addition to the architecture of the city".[166]

The last comment about the building reflected the status of the city was very important to all urban centres in the 19th and early 20th centuries. In the case of Broken Hill, the remark is particularly noteworthy as the NSW Government failed to address this aspect in the provision of its 1919 terminus building.

THE LIGHTS ARE TURNED ON – JUNE 1905

"On 13th June 1905, the new Sulphide Street railway station was lit up for the first time, and a party, including the general manager of the Silverton Tramway Company (Mr. Charles Eley), and Messrs. G. D. (Guillaume) Delprat, Robert Kyffin Thomas (proprietor of the South Australian "*Register*"), Neil Turner (London "*Daily Chronicle*"), and several others, was shown through the building. Everything is in up-to-date style, and the tessellated main entrance showed up well. The ceilings and woodwork and, in fact, all the fittings of the building were the subjects of much admiration. Mr. Delprat remarked that Broken Hill had waited a long time for a railway station, but he was pleased to be a shareholder in the Silverton Tramway Company when that company could boast of such a station as that now erected. The inspection was an altogether informal one, and was arranged at the moment, and principally to permit of the building being shown to Mr. Neil Turner and Mr. Thomas".[167]

NEARLY FINISHED – AUGUST 1905

"The old order changeth, yielding place to the new and in Broken Hill at present this natural law is being fulfilled more especially as regards the buildings of the city. Everywhere are signs of progress, and a general optimism which carries the blood more quickly through the veins of those with a stake in the city - especially a stake represented by good, solid bricks and mortar. To these, nay, to all who reside on the Barrier, the passing of an old iron and the advent of a new capacious brick railway station is marked with expressions of approval and congratulatory remarks on the with-the-times policy of those who direct the workings of the Silverton Tramway Company. The new station is, for its size, complete in every detail, and reflects great credit upon Mr. R. Madge, the architect. The contractors for the building were Messrs. Axtell and Waldic, and the masonry work was carried out by Mr. H. W. Rose. Completely finished, the building will cost £3,000. The main entrance is finished with cement and sweeps from left to right of the vestibule door. The main passage, which is tiled throughout, is 34 feet 6inches by 14 feet, and has a handsome Wunderlich ceiling, with picked out cornices. From the main passage-way, a caretaker's room leads off (called the clerk's office on the plan), and also the gentlemen's waiting-room, 18 feet by 17 feet. The ticket office, with three ticket windows, looks into the passage, and is 32 feet by 11 feet. From out this office (sic) is the parcels office, 32 feet by 30 feet by 16 feet high, and a fine capacious office it is. The ladies' waiting-room (which, like that for men, is fitted with asbestos stoves) is 26 feet by 18 feet. The lavatories are fitted

[166] *Barrier Miner*, 5th November 1904, p. 5.
[167] Ibid., 14th June 1905, p. 2.

up with the latest improvements, and ample provision is made for the public convenience. In front of the station is an iron verandah 98 feet 6 inches long and 15 feet wide. The platform lights are 1500 candle-power. A verandah is also on the Blende-street side of the building, but it is only 38 feet long by 7 feet wide. Ferns and plants will probably be placed beneath it and will lend improvement to the appearance of the front of the station. Seven hundred and eighty feet of picket fencing has gone up and, in front of the station, an asphalt platform has been laid, measuring 144 feet by 44 feet 6 inches. The station is topped by four gables, each surmounted with a finial, and Blende Street is greatly improved by the presence of the new building.

The old station has, been removed to the Railway Town property and re-erected. It will be used as a meeting place for concerts, meetings and the like for the Tramway employees, and here it will be apropos to mention something of the building and the company. The old building was tendered for on June 19, 1888, and the successful contractors were Messrs. Sara and Dunstan and, about two months after this, the building was ready for use. In those days, the tonnage carried was not more than a quarter of what it is today, it being a poor week's work nowadays if 12,000 tons has not been hauled over the line for the week.

Mr. Charles Eley, the popular general manager of the Tramway Company, started work with it in November of 1887, and the tramway was formally opened by the Duke of Manchester on January 12, 1888. Mr. Eley was born in Alberton (S.A.) in 1851, and first started work as a railway carrier. When the iron-truck system was abolished, he joined the government department and later on came up to Broken Hill. He has been connected with railway work since his 15th year, and his ability may be gauged when it is said that, even before his entrance with the Government department of S.A., his advice was sought from headquarters when the government officers were making up the railway tariff. One of the chief traits in the character of Mr. Eley is his consideration for his men, and the terrace of houses in which the principal officers of the Tramway Company reside is an illustration of this care on the part of their master.

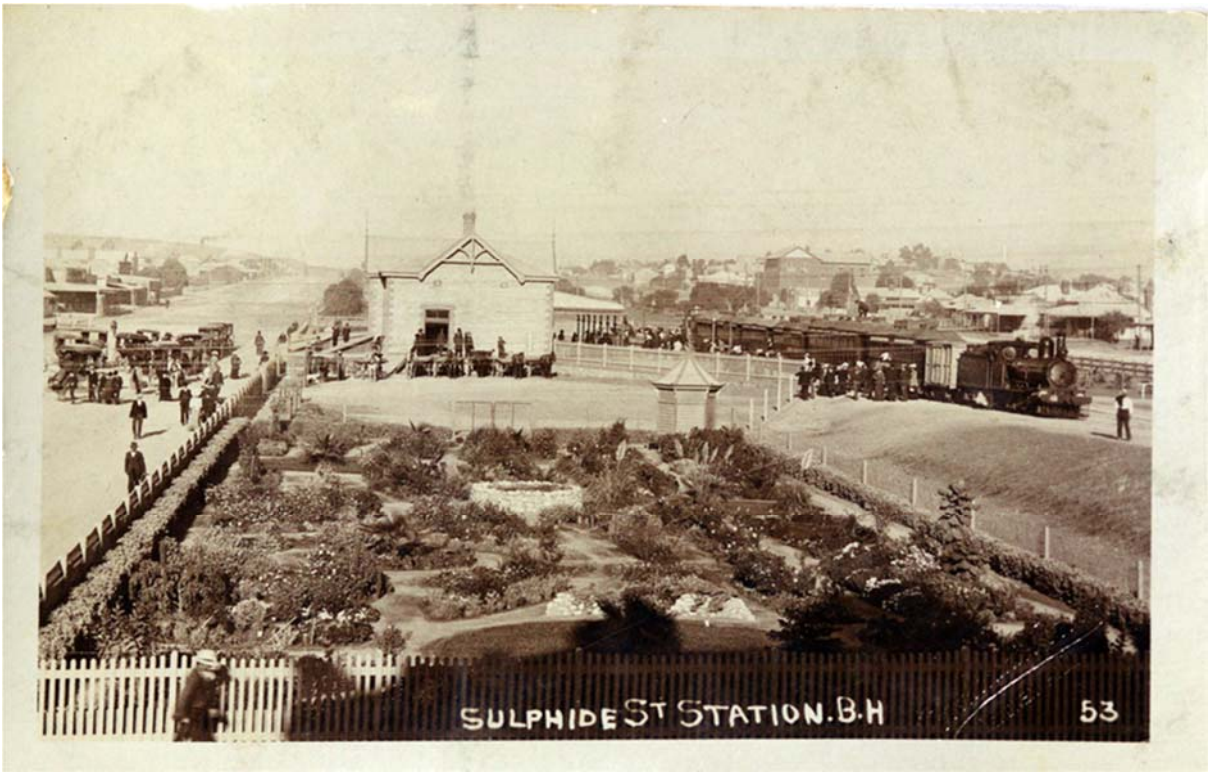
In all, about £30,000 has been spent to date on the buildings, etc., which are owned by the Tramway Company in Broken Hill.

It is the intention of Mr. Eley to have the grounds around the new Sulphide Street station planted with trees and shrubs, with the idea of making it eventually one of the beauty spots of the city".[168]

FINISHED – AUGUST 1905

The station structure was completed in August 1905. The stone walls were locally obtained from what was known as Block 10 on the line of lode.[169] The windows were surrounded by attractive red-coloured bricks of unknown origin.

[168] Ibid., 26th August 1905, p. 2.
[169] Roberts, op. cit., p. 157. year



The above, undated photograph is looking westward. While the station was called Sulphide Street, the station was not located in Sulphide Street. Sulphide Street marked the eastern boundary of the station, from where the photographer took the photograph. Note the horse-drawn vehicles waiting at the end of the structure outside the parcels office. To the left, is the large forecourt area with waiting road vehicles. The vertical posts supporting the platform awning are visible. Image No. 206044, ARHS Resource Centre.

BUILDING ASSESSMENT

The structure was modest in size and this attribute mitigated against any suggestion that an excessive number of shareholders' funds had been wasted in the provision of the station building. Of the three surviving stations in the city, it is this structure that comes closest to reflecting the economic and industrial status of the area it serves. However, the design was out-dated and, in this way, the structure was an architectural insult to the town. Luckily, no one with contemporary design knowledge or experience either resided in the town or was game enough to issue any criticism. The engagement of the out-of-date style is indicative of a structure designed by a non-architect. If the Company had engaged someone in the design industry, she or he would have been aware of what was in architectural fashion and what was out of fashion. For example, the New South Wales Railways was building structures at the time that reflected the Federation style whereas the Sulphide Street structure belonged to the Victorian period.

The building comprised of rooms which would normally be found any Australian railway system. Although the structure was not symmetrical, the floor plan was based on a near-centre pedestrian entry. It was well-planned with the public entry for the parcels office at the eastern end of the structure, which facilitated the separation between pedestrians and local carriers coming and going to the station to deliver and collect parcels and other small items.

Separate female waiting accommodation was provided, which also acted as an anti-chamber to the female toilet. That was normal practice on any Australian railway system. While there was no general waiting room, as would have been the case for a New South Wales station, there was a gentlemen's waiting room. Such exclusive rooms for men were rare on the NSW Railways. Another typical feature of an Australian railway station serving a larger urban centre was the location of the entry of the male toilet as far away as possible from the entry to the female toilet. As was the case for the New South Wales Railways, different names were used for the male and female toilets. Female toilets were described as "lavatory" while male toilets were simply "urinal", though in this case the title of the male toilet was omitted from the plan. While heating was provided in the two waiting rooms and vented through a single chimney, there seems to have been no heating for staff either in the ticket office or the parcels office.

The platform was at ground level, that being a major difference to those on the New South Wales railway system, which were elevated to match the height of the floor of passenger carriages.

A very large station forecourt was provided which facilitated the visual experience of the building and also acted to hold waiting road vehicles. Substantial concave-profiled, picket fencing and gardens enhanced the station site.

The most amazing aspect of the 1905 Sulphide Street station building is its architecture. It is no wonder that some people today think that the station dates from the opening of the line in 1888. It would have been an attractive building if it had been constructed at that time. When built in 1905, the design was completely out of date by about 20 years.

The features that denote its archaic design are:

- the use of posted verandahs on both sides of building,
- the substantial use of cast iron decorative features, such as the valence under the platform awning and the use of ornate capitals on the awning posts,
- the arched head to the pedestrian entry doors leading from Blende Street,
- the use of particular decorative bricks around windows and quoins on building corners,
- decorative finials and timberwork on each of the gables, &
- the convex shaped of the platform awning and the awning on the Blende Street side of the building.

It did not matter to the citizens of Broken Hill that the design was grossly out of date. They simply wanted a nice-looking structure to reflect the prosperity of their then town. They got it.

Gary Hughes and Stuart Sharp

5th April 2019

THE TARRAWINGEE TRAMWAY

Limestone suitable for use as a flux in the smelters at Broken Hill, had been discovered at Tarrawingee in 1889, and The Tarrawingee Flux and Tramway Co. Ltd was formed by local interests and built a railway from Broken Hill to Tarrawingee in 1891 to convey the limestone to Broken Hill. Again, the enabling legislation, the Tarrawingee Tramway Act 1890, perpetuated the tramway word, but it was for all intents and purposes a railway. The line was 38miles, 50 chains (62km) long, and built to 3'6" gauge, the same as the Silverton Tramway Co. The company operated their own locomotive for a year then hired locos from the Silverton Tramway Co. (STC). The STC subsequently took over all train working on the line under contract.

By 1898 all smelting in Broken Hill had been transferred to Port Pirie and, as limestone from the Tarrawingee quarries was no longer required in Broken Hill, the Tarrawingee Tramway was closed. However, pressure from local landholders who were also served by the line, and especially in regard to picnic trains[170] which ran to Stephens Creek on the line, resulted in the NSW Government taking over the tramway in 1899. The government spent £15000 acquiring the line then spent nearly £37000 repairing it. It continued to be operated by the STC, but under contract to the NSW Government. The STC then operated 1 train to Tarrawingee per week (on Thursdays) and special trains as required for the Stephen's Creek picnic crowds. A branch to the Broken Hill Racecourse north of the city was opened in 1900, and this received a train service as required. It was constructed during the period of NSW Government ownership.

The line eventually closed on 1st January 1929. There was a brief revival in 1930-31 to convey blue metal aggregate from Tarrawingee to Broken Hill for the concrete used in the construction of the Central Power Station. The rails were finally removed from the town precincts beyond North Junction by 1959. Many earthworks and bridge remains still exist and can be seen close to the Silver City Highway, north of Broken Hill, and along the Corona Road. Some of its route through and out of the city can also still be discerned. This was the only occasion that the NSW Railways owned a railway of 3'6" gauge.

The township of Tarrawingee grew to about 500 people in its heyday of the mid 1890's and had 2 pubs, a Post Office, Police Station and school. The town site is now deserted and only piles of rubble remain.

Sadly, in its 8 year life, the quarries of Tarrawingee accounted for 7 fatalities, 5 of them related to the use, or misuse, of explosives.

A fuller description of the history of this line is given in *The Tarrawingee Tramway* (Cyril Henshaw, Railmac Publications 1984) and *Rails to Wealth* (Lew Roberts, publisher unknown, 1995) pages 60 to 70 inclusive. Both of these publications can be accessed via the ARHSnsw Rail Resource Centre.

Gary Hughes, April 2019.

[170]Picnics were a big event in Broken Hill, and I can remember in the late 1940's going on many with my parents. In our case they were run by the Masonic Lodge and were too at Stephens Creek. However we went by car and/or bus.

BIBLIOGRAPHY AND FURTHER READING:-

The Rise of Broken Hill, Geoffrey Blainey. This was published in 1968 and is an excellent history of the mining in Broken Hill up to that time.

What's Good for Australia - The Story of BHP. Alan Trengrove. This was published in 1975 and is basically the history of BHP up to that time.

*From Silver to Steel, Roy Bridge*s. Published in 1920, this is a good early history of BHP and the early days of Broken Hill and is often referred to by other authors. Due to its age, it can be difficult to access.

The Richest Lode, R J Solomon. Written in 1988 for Broken Hill's centenary of local government, this is a comprehensive narrative of the history of the city and its mines. Currently still obtainable at about $70, this is the best book available on Broken Hill's history.

The Silver City, Ion L Idriess. Well known author Ion Idriess lived at Broken Hill and worked in the BHP mine in the early 1900's, and in 1956 wrote of his experiences, not only of Broken Hill, but other places he travelled to in NSW. Whilst not an historical narrative in the strict sense, none - the - less this book is worth a read.

The Minerals of Broken Hill. Various authors, Edited by William D Birch. A description of the minerals in the Broken Hill lode.

Rails to Wealth. Lew Roberts. The story of the Silverton Tramway Company Limited.

The Tarrawingee Tramway Cyril Henshaw.

Steaming Down Argent Street. Ken McCarthy. The history of Broken Hill's street tramway system.

Broken Hill – A Guide to the Silver City. Elizabeth Vines. An up to date guide to the heritage of Broken Hill. At about $20, this is the best value for a brief history of Broken Hill.

Broken Hill 1883 – 1983, and Silverton. RHB Kearns. A series of 5 small volumes on the history of Broken Hill and Silverton.

In addition to the above, the ARHSnsw Rail Resource Centre has a significant collection of material concerning the railways of Broken Hill.