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THE RAILWAY STATIONS OF NEW SOUTH WALES

1855-1980

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CHAPTER TWELVE

EARLY VICTORIAN 1851-1860
12. EARLY VICTORIAN PERIOD (1851-1860)

12.1 INTRODUCTION

The New South Wales railway system commenced operation from two centres, Sydney in 1855 and Newcastle in 1857. Although there were common features between the two physically isolated railways, the number of factors special to each area demands separate treatment of the background and development of each line.

Not only was the Early Victorian era split geographically but it was also divided temporarily into two distinct periods. The division takes place in August, 1856. The initial period is the time of free enterprise, mainline operation and is highlighted by the opening of the Colony's first railway from Sydney to Parramatta in 1855. The second period commences in August, 1856, when the Government took over control of the operation of the rail network. Since that time, the mainline railways have been operated by the Government.

The initial period was a time of changing personnel. It lacked a continuity of engineers and field staff. The second period is dominated by the arrival from England of John Whitton who gave unparalleled leadership in both civil and mechanical engineering. Whitton introduced new station designs which were frequently used extensively throughout the system in the 19th century. The new designs not only reflect a change of engineers, but also changing social, economic and political circumstances.

The first period was the time of gold fever. Men rushed to the goldfields leaving the construction of the railways to a smaller workforce who demanded higher wages. By the start of the second period, the rushes were over, there existed a bicameral legislature and a considerably larger population already familiar with the sight and sound of railways. The architecture of the buildings in the Early Victorian era reflect all these changes and, just as the railways as a whole in the Early Victorian era can be viewed in terms of private and subsequently Government operation, the buildings also can be divided into these same two periods.
The enterprise of woolgrowers was the stimulus for initial railway construction in New South Wales. They controlled the Parliament which in 1849 chartered the Sydney Railway Company to build railways to the established towns on the western side of the Great Dividing Range. The Parliament also incorporated the Hunter River Railway Company in 1854 to build a line into the Hunter River Valley from Newcastle.

The Companies faced adverse financial conditions, to such a degree that it was necessary for the Government to assume ownership of the two railway Companies in 1855. Despite this change, the objective of the railways remained the conveyance of pastoralists' goods to the seaboard. The first line in 1855 was only the initial stage of a series of inland lines.

When the political, economic and social conditions changed by 1856, so did the orientation of the railways. In 1856, the objective moved towards passenger traffic. In addition to a greatly increased population and a changed economic system, formerly influenced by woolgrowers, the arrival of the new Engineer-in-Chief, John Whitton, heralded the change from only freight marketing to a balanced outlook of which passenger traffic was a significant factor.

In the years between 1855 and 1860, engineers built 70 miles of railway and 23 stations. Of these stations, eight (six on the Sydney-Parramatta line plus Fairfield and Liverpool) were constructed by the Sydney Railway Company (Fairfield and Liverpool were not strictly built by the Company but were influenced by it) in the private enterprise period to 1856 and the remainder were built in the Government period under the leadership of Whitton. No stations were built by the Hunter River Railway Company as the Government took over construction of the line to Maitland nearly two years before the opening of the line. All structures built between 1855 and 1860 followed English designs.

It is in the poor quality of materials used for station buildings on the Sydney-Parramatta line in 1855 and the unembellished, uninviting designs which emphasised the orientation against local passenger traffic. A railway company which was rural and freight oriented would not be expected to build ornate and attractive passenger buildings and those on the Sydney-Parramatta line reflected this.
The adverse financial circumstances which the Sydney Railway Company faced merely supported its parsimonious approach to station design. Even if economic conditions were favourable, the same designs would probably have been used because of the objective of the enterprise.

Moreover, the same low cost materials and unappealing designs would have most probably been employed on the Parramatta line had the railway started as a Government initiative from the outset. The Government shared with the Company the objective of building a railway system to reach the inland as quickly and as cheaply as possible. The planning and construction of the Sydney-Parramatta line station buildings was carried out by private enterprise, but it was subject to broad Government control. The Government's disinterest in the immediate line to Parramatta is reflected in its decision, in August, 1855, to lease the railway to William Randle, the Engineer who built it. The Government finally took over the operation of the line in September, 1856.

Everything changed after 1856. The change was not simply in the nature of ownership but more deeply seated in the circumstances around which the station buildings were designed. It was the social, economic and political environment that changed, not merely the financial takeover of the Company shares by the Government. It had been the rurally oriented environment which had forced the cries for rural freight railways and, when the environment had changed by 1856, so did the nature of the ownership of the railways and the design of station buildings on it.

The buildings constructed after 1856 reflected the new interest in passenger traffic. For the first time, separate accommodation was provided for porters and female passengers. The provision of separate ladies' waiting rooms was a feature of station architecture which lasted until 1972. At the same time, the buildings were designed to permit access to the platform through the middle of the structure (and not around the building). This focussed the attention of potential travellers on to the building. From 1857, awnings were placed on at least one side of most buildings and stations were often located at the end of streets where they would be easily seen. All these features were found on the first stations, Campbelltown, Maitland and
Oneysuckle Point built in 1857 and 1858 in the Government period and were employed on the vast majority of structures built up to the late 1880s. It was Whitton who had approved the design for Campbelltown and his influence pervaded railway station architecture until his retirement in 1890.

The development of not only the railways but of the entire Colony is manifested in its station buildings. The Early Victorian era is of particular significance rising from the involvement of private enterprise.

2.2 THE SYDNEY SYSTEM

2.2.1 THE PRIVATE ENTERPRISE PERIOD

It is not surprising that the initial management of the rail system was undertaken by private enterprise. The early history of the railways in New South Wales is very closely related to the involvement of large, private landowners in the development of the local wool industry. In 1820, Governor Lachlan Macquarie had issued tickets of occupation which opened up three areas, the Goulburn Plains, the Bathurst region and the Hunter River Valley. A pastoral boom occurred in the 1820s and 1830s. Wool exports increased fourfold between 1830 and 1835 and doubled again between 1835 and 1840.\(^{(1)}\)

The rural expansion encouraged debate on the construction of railways. In the 1830s, pastoralists supported railway construction to convey their products more cheaply from the inland to the seaboard. However, the depression in the first half of the 1840s dampened their enthusiasm and it was not until the depression had passed, during the second half of the 1840s, that graziers again expressed a desire for railway construction. By this time, pastoralists were both extending the limits of settlement and consolidating their existing runs.\(^{(2)}\)

An article appeared in the Sydney Morning Herald in January, 1846, which stated "Railroad: parties favourable to the construction of railways in New South Wales are requested to meet at ..."\(^{(3)}\)


From the time of the first meeting on January 29th, 1846, until the end of the private enterprise period in 1856, rural interests dominated every facet of railway policy. The meeting was chaired by James Macarthur of Camden, a very well known wool grower. Those in attendance formed a committee whose aim was to examine the possibility of implementing not merely a link between the two important centres of Sydney and Parramatta but providing a rail line from Sydney to one of the three principal inland centres at Goulburn. Thus, from the outset, the initial attempt for rail construction was organised by pastoralists and was aimed at facilitating the transport of inland, pastoral products to the seaboard and of the carriage of mercantile goods from the entrepot to the inland. Later in 1846, the committee reported to a second public meeting that £2,000 from freight and £24,000 from passengers could be expected in a financial year from rail traffic between Sydney and Goulburn. Between 1846 and 1848, potential investors established committees at Parramatta, Bathurst, Goulburn, Yass and Queanbeyan to attract additional support amongst pastoralists. Thus the pattern of the State's present railway network had been established some nine years before the opening of the first line.

Prior to a third public meeting in 1848, a provisional committee had approached the Government for financial assistance to carry out a survey. The committee indicated at the third public meeting that the Government had granted assistance. This marked the start of the Government's relationship with private sector railway activity. From this time, private enterprise called upon the Government for increasing financial assistance, partly arising from the limited avenues for the raising of capital and partly the result of adverse economic conditions. This finally resulted in the Government takeover of the private enterprise assets in September, 1855, and of the actual operation of the system from August, 1856.

On the 4th April, 1848, those at the third public meeting presented a petition to the Legislative Council pointing out the advantages (e.g. public confidence) which would accrue if the Government, rather than private enterprise,

conducted inquiries into the implementation of railways in the Colony.\(^{(5)}\) In this way, private enterprise attempted to establish a policy link as well as the earlier financial link with the Government.

Only a week before the petition was presented, the Legislative Council had formed a select committee to consider "the expediency of introducing railways into this Colony".\(^{(6)}\) The Council referred the petition to the committee. The committee, under the chairmanship of Charles Cowper, reported that the Government should hold out some inducement to encourage railway construction. The policy link between the Company and the Government had been established.

Cowper, who like Macarthur was a leading pastoralist, was later to become the first Chairman of the Sydney Railway Company. His association marked the third link between private enterprise and the Government in the early stages of railway construction in New South Wales. In addition to the financial and policy links, there was now a link involving common personnel. Cowper's presence ensured the rural orientation of the initial railway proposals and the funds necessary to achieve that goal.

It was Cowper who issued a circular in September, 1848, convening a meeting of persons "favourable to the taking of practical steps for the construction of railways".\(^{(7)}\) A number of enterprising men, including the merchants Thomas Mort and Charles Kemp, as well as pastoralists attended the meeting and elected Cowper as Chairman of a provisional committee.

Cowper subsequently asked the Government to guarantee the enterprise, which it did. Soon after, the committee issued a prospectus which stated that a "trunk railway would be built from Sydney to a junction for the southern, western or north-western branches and that it was intended to carry the line to Goulburn and "if found practical, to Bathurst".\(^{(8)}\)

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\(^{(6)}\) ibid.

\(^{(7)}\) ibid.

\(^{(8)}\) Birch, "The Sydney Railway Company", p. 60.
In 1849, the Legislative Council enacted legislation to incorporate the Sydney Railway Company. Pastoralists and merchants dominated the directorship of the Company.

The Company commenced construction on the Sydney to Parramatta railway in 1850. This represented only the initial section of a rail system which was to connect the colonial capital with the established inland centres. The Company was not formed purely for the traffic between Sydney and Parramatta. Earlier attempts to form companies to serve only the area on the eastern side of the Blue Mountains had failed to secure popular and Parliamentary support. The success of the Sydney Railway Company is attributed to the shared philosophy of both the Government and the Company to build railways to inland centres.

Not only was the objective of the Company to serve inland areas, but the Company was interested in conveying primarily the goods of pastoralists to the seaboard and the wares of merchants in the reverse direction and not passengers. The expected revenues presented to the second public meeting demonstrate this.

In addition, both the Company and the Government shared the view that the railway should be constructed as cheaply as possible. In 1849, a Council Select Committee reported that there were "no expensive and ornamental stations to construct" and that all the materials (other than rails) were already on the line between Sydney and Parramatta. (9) This emphasises the intention not to construct station buildings that would appeal to potential passengers.

Shortly after the commencement of the construction of the line in 1850, the Company experienced labour shortages. The exodus of labourers to the Bathurst goldfields left the Company with a greatly reduced manpower complement. In order to attract labour, wages far in excess of the average were paid.

The Company's adverse financial position prompted a further request in 1852 for financial assistance. The Government agreed to pay the passage of 500 labourers from

(9) ibid, p. 56.
England to work on the line. Later, the Company was still in financial difficulties and the Government gave £150,000 to the Company on the proviso that it would have the right to nominate three of the Company's six directors.\(^\text{(10)}\)

Construction of the Sydney to Parramatta line progressed slowly because of the adverse financial conditions facing the Company. With half of the directors under Government control, the board of directors instructed the engineer in November, 1854, "to erect a building (at Sydney) like a carriage shed, to be used as a temporary station house".\(^\text{(11)}\)

The Company had planned that both termini would be approximately one mile from the central business districts. Despite its representation on the board of directors, the Government made no attempt to move the termini closer to the town centres. At Sydney, the terminus was at present day Redfern and at Parramatta the terminus was near the present day Granville. The location of the termini must have proved a considerable inconvenience to patrons, as evidenced by the necessity for an omnibus to be provided by the Company between each terminus and the centre of both Sydney and Parramatta. It also indicates that both the Company and the Government were not interested in local passenger traffic. The fact that passenger revenue was almost 20 times greater than freight revenue in 1855 is partly explained by the absence of goods trains until 1857, by the attempt to undercut the bus fare and by the desire by colonists to travel on their first railway.

The Government had instructed that a temporary building be erected at Sydney. It was nothing more than "an ugly corrugated iron shed" as shown in figure 172.\(^\text{(12)}\) A similar structure was built at Parramatta. Both structures followed English practice whereby the roof of the building covered the track as well as the station structure. The design is known as a train shed. The Sydney terminus measured 100' x 30' and was the largest structure on the


\(^{(11)}\) Birch, "The Sydney Railway Company", p. 75.

line to Parramatta. Together with the second Sydney station of 1871, the Regent Street Mortuary station and the Necropolis, both of 1867, the first Sydney and Parramatta buildings were the only train sheds ever to be built on the system.

Between the terminal stations at Sydney and Parramatta, the Company built four intermediate stations. The Government took over the assets of the line in August, 1855, one month prior to the opening. However, all the stations had been planned by the Company prior to the takeover, though there was considerable Government supervision from 1854 onwards.

Two designs were used for the four intermediate stations both of which again followed English practice. Newtown and Ashfield both had brick combination offices/residences looking very much like suburban cottages as shown in figure 7. Burwood and Homebush had small waiting sheds with the front open and a simple skillion roof sloping away from the platform as shown in figure 167. This form of roof requires only a series of rafters between the sides of the building, eliminating the necessity for a more costly pitched roof. The skillion is the cheapest form of roof that can be built.

The unattractiveness of the station buildings on the line reflected both intent of the Company and the Government to ignore the potential passenger market and the adverse financial position in which both were placed. Although all intermediate stations were situated at or near cross roads, where they would be seen, the designs were outwardly unattractive. In addition, they all lacked adequate facilities (no toilets for women, no luggage rooms, not even a waiting room for the public). All buildings showed the rural freight bias and need for parsimony.

It was English practice to construct buildings with a "normal and familiar" appearance, lest travellers be frightened, (13) but this did not even apply to Newtown as the building was not completed prior to the opening of the line. The slow construction of Newtown was indicative of

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the financial troubles the Company experienced. Although all the other structures were erected prior to the opening of the line, they mostly used cheap materials such as timber or corrugated iron.

The buildings at the opening of the line emphasised not only the difficult position of the Company, but reflected the Company's view that the line to Parramatta was the initial phase of an inland railway. The Company was not interested in the provision of reasonable facilities aimed at attracting potential local passenger traffic. Only two structures were brick and even those were unattractive.

Plans exist only for Ashfield and Newtown; the plan for the latter being for a timber waiting room. Another source (a group of sketches "designed to encircle a fold cup presented to Mr. William Randle" which are stated as being "true representations of the original buildings") shows a combination office/residence at Newtown to the same design as at Ashfield. This type of structure featured office accommodation for the station master on the rail elevation and residential accommodation for himself and his family on the road approach. Newtown and Ashfield were the only two intermediate stations to have station masters. Newtown was important as it was the end of the double track section from Sydney (requiring full time attendance to reverse points). Ashfield received its brick structure initially for use by the engineer who used it as his headquarters to construct the first section of the Sydney-Parramatta line between Ashfield and Haslems Creek (now Lidcombe).

There is a possibility that the existing plan for Newtown relates only to one platform and that another structure was on the second platform. The contract price for the station at Newtown was £1,760 but in another source it is shown that the cost for Ashfield was £2,338 suggesting the building at Newtown was inferior to Ashfield. It must be kept in mind that these figures include site preparation and construction of platforms, fences, etc.

Although no plans exist for Burwood and Homebush, the tender prices of £275 each suggest very modest structures. These have been referred to as "temporary roadside structures". Not only were these temporary but, since the contract for Newtown was let only the month before the opening of the line, it must also have been unattractive to patrons. The temporary nature of the stations correlated with the instructions to the Engineer in November, 1854, to construct a temporary building at Sydney.

The same source that depicts the sketch of Newtown also shows the other buildings on the line and depicts Burwood and Homebush as the same as the plan for the timber waiting shed at Newtown. It also shows a building at Parramatta the same as Sydney. Parramatta Station cost £1,032 compared with £2,012 for Sydney. On this basis, Parramatta must have been inferior to the "ugly corrugated shed" at Sydney and less grand than the combination office/residence at Ashfield. The use of corrugated iron at Parramatta would explain its lower cost than Ashfield.

Precisely one year after the opening of the Sydney-Parramatta line, the Company opened the line from Parramatta (near the present day Granville) to Liverpool. Besides the terminus, of which nothing is known, the only intermediate station was Fairfield. There a combination office/residence similar to Newtown and Ashfield was erected as shown in figure 6.

When the Government decided to take over control of the operation of the Sydney-Parramatta line in August, 1856, it appointed Joseph Brady as the resident engineer in a temporary capacity. Although Whitton's appointment dated from March, 1856, he did not reach Sydney until December of that year. It was Brady who approved the design at Fairfield and it was the last known station planned prior to Whitton's arrival. Although it would seem Brady approved the building at Fairfield in the month of or month after the Government takeover of operations, he was heavily influenced by the then existing buildings constructed by the

(17) ibid.
Sydney Railway Company. Strong links existed at the time between the Sydney-Parramatta line and the extension to Liverpool as William Randle was the lessee of the former and the contractor for the latter. Randle had been the Engineer for the Sydney Railway Company at the time of the transfer of capital to the Government.

Thus, Fairfield represented a firm connection with the private enterprise period. Brady pencilled on the plan that all ornate and decorative work was to be dispensed with. This emphasised the continuation of the money conscious approach to station construction which existed on the Sydney-Parramatta line.

Fairfield was the last station to be designed under the influence of private enterprise. The only railway accommodation was a booking office. There was no waiting room; patrons had to rely on an awning for protection from the elements.

12.2.2 THE GOVERNMENT PERIOD

The period starts in August, 1856, when the Government took over operation of the Sydney-Parramatta line. It was nearly two years after the opening of the line to Liverpool in September, 1856, that the railway reached Campbelltown in May, 1858. Campbelltown was the first station on the Sydney system to be planned by the Government. (19)

The Government period is dominated by the consistency of tenure of engineering personnel. Railway construction was placed in the hands of John Whitton as the Engineer-in-Chief who had arrived from England in December, 1856, with four Assistant Engineers. Together, they gave a continuity of railway station design for the next forty years.

In making his annual report for the calendar year, 1858, the Commissioner said that "the Campbelltown extension may, therefore, be considered as likely to prove financially successful ... if as assumed the present goods traffic will double within the year ... A large increase in passenger traffic can scarcely be expected, but must be dependent on the growth of population and the further settlement of the country. Indeed some time must always be allowed for the

(19) Nothing is known of the original station at Liverpool.
development of the traffic of any newly opened line, whether passengers of goods". (20) The Commissioner estimated that passenger receipts for 1859 would be £75,000 whilst gross expenditure would be £40,800. (21)

Despite the caution about expected passenger usage, the Commissioner was clearly optimistic in both the short term, as suggested by his financial estimates, and the longer term. Possibly in an attempt to meet the Commissioner's expectations, Whitton introduced a new design for Campbelltown. (22) He sited the structure at the end of a street where it could be seen from the main thoroughfare; he also provided a ladies' waiting room and porters' room - the first use of these in the Colony, and a full length awning. He combined these and other functions, as shown in figure 71, into the one structure. It was the first time that engineers had used a permanent structure purely for railway purposes. Previously, the engineers combined offices with residences. Another significant difference from earlier structures was the adoption of transverse access as the basis for planning. It was the first permanent station that passengers walked through to reach the platform. Previously, they reached the platform by side access.

The layout was based on a centre booking hall with near equal number of rooms on either side. The design easily adapted to either a longitudinal hipped or gabled roof, as had been the earlier case at Maitland as in figure 14, but the structure as built had a hipped roof (23) and shown in figure 173.

If Whitton's design was an attempt to provide for increased passenger demand, it possessed limited appeal to the public. Although it was well sited, the structure had no exterior embellishments whatsoever. In this way, it was not an appealing station. There was no porch over the entrance. Not only was it lacking embellishments, it lacked

(21) ibid., p. 8.
(22) see figure 71.
(23) Full hip at up end, broken hip at down end.
a number of user needs. There was no heating in the
general waiting room and there was no provision for
parcels traffic. Whilst Whitton approved the installation
of fires placed in the ladies' waiting room and booking
office, he omitted these from the general waiting room
and porters' room. In addition, females using the ladies'
waiting room were subjected to smells emanating from the
ladies' toilet to which it was juxtaposed.

Whitton was faced with a dilemma in approving the
design. Firstly, he was aware of changed social conditions
which prompted more use of rail by people. Secondly, he
knew Commissioner Martindale was hoping for increased
traffic. Thirdly, he was aware of opposition to the
extension of heavy rail lines into the interior because
of the substantial costs involved. Fourthly, Whitton had
his own ideas about the design of buildings. All these
Whitton had to consider before approving the new design.

A new lower House of Parliament had been
established in 1856, in answer to democratic demands for
direct election of Parliamentarians. In 1858, the Parliament
passed legislation which removed control of the railways
from officials and placed it in the hands of Parliament. (24)

The goldrushes had increased the population of
the Colony greatly and with the new settlers came an
overseas lifestyle which was accustomed to the presence
of a rail system. Of major significance were public
attitudes towards travel which would have been different
to those existing at the turning of the first sod in 1850.
By the late 1850s, the public was familiar with and probably
enjoyed rail travel. The end result was a wider passenger
market. In fact, revenue from passenger traffic greatly
exceeded goods revenue until 1867 on the entire network
and in 1858 was three times greater than the earnings
from goods and livestock. (25)

Not only had the political and social environment
changed by 1858, but the economy was significantly different
from earlier years. Whereas it was the pastoralists who had

(24) 22 Vic. No. 19.
(25) New South Wales Department of Railways, Annual Report
to 30th June, 1956, Sydney, Government Printer, 1956, p. 82.
dominated economic activity and introduced railway construction, they had now lost their stronghold position. The impact of mining was felt in all sectors of the economy. There was a greater diversification and restructuring of the economy than had ever taken place before the gold rushes.

The State Governor, Sir William Denison had voiced strong opposition to the continued use of steam railways and favoured horse traction beyond Campbelltown. Whitton was aware of Denison's thoughts before departing England.

The difficulty which Whitton faced in designing a structure to meet all circumstances was demonstrated at the opening ceremony when the line reached Campbelltown. On that occasion the Colonial Secretary, Charles Cowper, referred to the problem of equating inland railway extension with the limited finances available for the task. He said he hoped that "this line was only the forerunner of the extension of the railways throughout the interior." Cowper went on to say that "the railway had been brought up to its present point through difficulties of no ordinary character. In a community of this kind, so small, and with finances so straightened, it had been unquestionably no easy matter to bring them to such a progressive state. However, he concluded by stressing that "they (i.e. the people of New South Wales) must now look forward to the construction of railways at a much smaller cost than hitherto."

Whitton had to provide a design that was economical but which would symbolise the prosperity of the Colony. One simple way be achieved economies and ensured that future communities shared in the glory of their prosperity was to use the same design in the future for locations of similar size and/or nature as Campbelltown. By doing so,

(28) Sydney Morning Herald, 5th May, 1858, p.5.
(29) ibid.
(30) ibid.
Whitton standardised station building architecture. He symbolized Colonial prosperity by providing the Colony's first brick railway station building devoted entirely to Departmental business. In this way, he symbolised prosperity with permanence and the emergence of a new design. Regrettably, Whitton's design went completely unnoticed, there being no reference to the building in the press report of the opening ceremony. (31)

The needs to economise but provide a symbolic structure were not the only factors of significance. In 1858, Campbelltown was the polling centre for the electorates of Cumberland Boroughs and Cumberland (South Riding). One of the two members for the latter electorate was Edward Flood, who at the time when Whitton approved the design was the Secretary for Public Works which portfolio encompassed railway construction. Flood was in a position to give Whitton the Government support needed for a new design. Until 1858, Whitton could have been overruled by the dictate of the State Governor to use horse traction beyond Campbelltown.

Whitton was heavily influenced by his experience in England on the East Lincolnshire Railways and on the Oxford, Worcester and Wolverhampton Railway towards "efficiency and permanence". (33) In England, railway revenue was dominated by passenger trade and Whitton was most aware of the need to increase and improve railway stations. "He stood firm on the question of quality." (34)

In addition to the various political, economic and social factors and Whitton's own ideas, Whitton also had to consider local factors. Campbelltown was the first major inland town at which the railway came close to the main road thoroughfare and the first not near a major river. It was an important district headquarters for the Government and had a substantial population. For the first time, Whitton had to approve a design for a permanent station building to meet the needs of local inhabitants and one which had to compete with road traffic.

(31) ibid.
(33) Smith, John Whitton, p. 12.
(34) ibid.
When one considers what services Whitton did and did not provide in the Campbelltown structure, it would seem that he strove to achieve a balance between economy and attractiveness. He tried to encourage people by approving a permanent brick structure - the first in the Colony - solely for railway purposes. In this way, the structure was progressive in intent. Its omissions reflect the forces of conservatism. Symbolically, it showed the many forces impinging on the decision maker.

So far as operational efficiency is concerned, it was poorly designed. While its planned and actual non-symmetry symbolically reflected the varied environmental factors, its floor plan confirmed an absence of operational efficiency. With no windows on the platform, staff and public alike could not see approaching trains. There was no access between the porters' room and booking office to facilitate inter-office communication and the apparent absence of cleaning passages for the ladies' toilet suggests that staff had to carry pans through the ladies' waiting room. As indicated before, the juxtaposition of these must have made it unpleasant for waiting women.

On balance, it would seem that Whitton may have compromised too much in his design of Campbelltown through the provision of an inefficient and unattractive structure which was seemingly a response more to political and economic conservatism. Campbelltown remained the terminus of the southern line until 1862.

In 1860, the last year of the Early Victorian Era, the line was extended from Parramatta to Blacktown in the west. Three stations were opened at the time, namely Parramatta Junction (near present day Granville, being the junction with the line to Campbelltown), Parramatta (a new site one mile away from the first and situated very close to the central business district - see figure 174) and Blacktown shown in figure 175.

Parramatta Junction station geographically replaced the original Parramatta station that existed from the opening of the line in 1855. The train shed at the first Parramatta station was demolished when the new station at Parramatta, about one mile west, was opened in 1860.
At Parramatta Junction, Whitton approved a two level station as in figure figure 176 on one platform. A similar single storey building was also planned but not used (see figure 177). The on-platform part of the two level structure was a small two roomed brick building, possessing a gabled roof, with a general waiting room and booking office. Whitton adopted the policy that station buildings should be commensurate with the available traffic and size of the centre served. With a new building at Parramatta, there was a need only to provide the barest of facilities at the site of the first Parramatta station. The use of a gabled roof was limited to very few buildings before 1875 and, because of this and the split level of the facilities, Parramatta Junction was rare but not important.

On the other platform at Parramatta Junction was an open fronted timber waiting room, 13 feet long, 8 feet high at the rail elevation and 6 feet in height at the rear of the building. Even this simple shed was made attractive by the use of fretted weatherboards, vertically placed, as a fascia.

When Parramatta Station was planned in 1859, it was the largest building in the Colony, other than the terminus at Sydney. It featured separate gents' and ladies' waiting rooms, a telegraph office, parcels and lost luggage room and also a porters' room in addition to the normal (post 1858) facilities such as booking office, toilets and lamp/oil room. (35) The officer who approved the plan is unknown. Nevertheless, it was a duplicate of the structure built at Campbelltown except for two differences. Firstly, the Campbelltown building was unsymmetrical in that the main building was flanked by a small, parapet topped structure at one end only, whereas Parramatta was symmetrical with this feature at both ends. Secondly, the entrance to the building at Parramatta was far more elaborate than Campbelltown, featuring a portico instead of the more normal awning supported by posts on the approach elevation.

(35) See figure 174.

(36) Sydney Morning Herald, 2nd July, 1860, p. 5.
At the opening of the Parramatta station in 1860, the Sydney press noted the superiority of the structure. The Sydney Morning Herald gave the following details:

"The building is of brick, with stone dressings; the rustic work and moulded cornices give it a handsome appearance, while its size and admirable general arrangements render it the most complete railway station in the Colony." (36)

This was the first occasion in the history of station building architecture that the reference was made to a structure being the most superior building in the Colony. From this point onwards, this reference was used again and again virtually as each new building was opened.

Notwithstanding the differences, the building at Parramatta was not embellished by any iron lacework or other metal or timber ornamental feature and the structure followed Whitton's dictum of "economy and efficiency". The additional features at Parramatta station were nothing more than an indication that the town it served was important and more important than Campbelltown.

With three buildings (Campbelltown, Parramatta Junction and Parramatta), Whitton had demonstrated his policy of adjusting building requirements to the character, composition and size of the localities served.

The use of the same design at Campbelltown and Parramatta indicates that the building at the former is not attributable to its terminal nature in view of the use of the same design at Parramatta, which was an intermediate stop. Many other towns, both termini and intermediate stops, were to have the same design from 1858 to 1888.

Whilst there was a degree of standardisation at the larger centres, this was not the case for intermediate stations. Before 1860, unknown engineers approved the use of brick combination residences/offices for Lidcombe and Blacktown but chose a two room timber structure for Petersham. (37) It is of interest to note that on all three of these plans, there is no indication of approval by any officer. The variance in architecture suggests Whitton was himself

(36) Sydney Morning Herald, 2nd July, 1860, p. 5.
(37) See figure 15 for Petersham.
concerned only with the major structures. An interesting feature of the Blacktown structure was the fact that it was incomplete at the time of the opening of the railway extension to that point in 1860. (38) This was to be a common feature of many station buildings erected after that date. Ferrie argues that the Petersham structure was erected with economy in mind. He says that "this station was typical of the stations of this time, definitely a minor element in the railway construction works, designed for speed of erection and economy, and not for the comfort of the passengers nor for any great length of life". (39)

12.3 THE NEWCASTLE SYSTEM

12.3.1 THE PRIVATE ENTERPRISE PERIOD

Unlike the Sydney system, the private company which started construction of the line between Honeysuckle Point, near Newcastle, and Maitland did not build any of the stations on the line. The line was taken over in July, 1855, nearly two years before the opening of the line in April, 1857. Nevertheless, to understand the conditions under which the stations were erected by the Government, it is important to consider the role of private enterprise prior to the takeover.

As the pastoral industry accelerated from the 1820s in the Bathurst district and Goulburn Plains, the agriculture industry flourished in the Hunter River Valley at the same period. Together with East and West Maitland, Morpeth formed the urban commercial centre of the district. Morpeth was the navigable head of the Hunter River for vessels up to 600 tons.

Although coal mining was rapidly developing in the Newcastle area, it was the Sydney entrepreneurs who called for the implementation of railway construction to tap the inland Hunter Valley. In 1845 and 1846, there were the initial anonymous calls in newspapers for railways though, unlike the situation in Sydney, nothing resulted. (40)

(38) Sydney Morning Herald, 2nd July, 1860, p. 5.
(39) M. Ferrie, The First Fifty Years, unpublished B.Arch. thesis, University of Sydney, 1969, no pagination. Ferrie is incorrect in regard to his comment about the typicality of the design at Petersham.
Leading Sydney businessman called a public meeting for 20th April, 1853, to discuss the construction of a railway line in the Hunter Valley. William Charles Wentworth, a leading pastoralist and member of the Legislative Council, chaired a meeting in Sydney. Despite the problems of the Sydney Railway Company, the gathering agreed to establish a company, hoping for similar Government assistance. It was to be called the Hunter River Railway Company.

The prospectus stated that "the line of railway is intended therefore to supply a "Great Highway" along the district of the River Hunter for the transit of the inexhaustable resources of its gold and coalfields, as well as immense agricultural produce of corn, wool, cattle, etc., and also timber, iron and other articles of commerce, for which this line will extend the market". (41)

Just as Cowper provided the link between the Sydney Railway Company and the Legislative Council, Wentworth did the same for the Hunter River Railway Company. Parliament, within six months of the issue of the prospectus, chartered the Company to build a railway into the Hunter Valley. As in the case of the Sydney Company, the railway was inland and freight oriented.

It was the firm intention of the Company to penetrate into the rich Hunter River Valley. The link between Honeysuckle Point and Maitland was again the initial step in the longer term plan to tap the Colony's inland resources. Although it is often thought that the objective of the Company was to link Newcastle and Morpeth, this view is erroneous. (42) It was not the intention to take trade from Morpeth and thereby make Newcastle the commercial centre of the Valley, though this did occur. At the opening of the line, the Newcastle terminus was over a mile from the main wharves, a situation which Whitton condemned. While the line was extended in 1858 to the wharf area at Newcastle, it was not

until 1864 that the Government constructed a branch line from East Maitland to Morpeth. When the Government opened the branch, the junction faced trains coming from Maitland and the Upper Hunter Valley, thus permitting continued easy access of rural products to the Morpeth wharves.

The line running from Honeysuckle Point, near Newcastle, to Maitland, boosted trade in the Port of Newcastle and, in so doing, brought about the eclipse the Maitland complex as the commercial heart of the Hunter Valley. Agricultural goods could be brought more quickly and economically to Newcastle by rail for shipment to their markets. (43)

The local coal interests were not involved in the Company. Up till the 1850s, mine proprietors developed only those coal mines which were located close to the wharves. (44) Waratah was the only coal town to be founded in the 1850s and this occurred as a result of excavations for the railway. (45)

There was a general preference by colliery proprietors to convey coal over the shortest possible route to the Hunter River rather than use the Company line to Newcastle. When George Wright obtained Parliamentary approval in 1854 for the construction of a line from Minmi to the River, the Company raised no objection for the tramway to cross the main Maitland-Newcastle railway. (46)

The Hunter River Railway Company was more interested in providing a fixed railway system for pastoral and mercantile products between the inland and Newcastle. Thomas Mort and Charles Kemp represented mercantile interests and secured close ties with the Sydney Railway Company. They were directors of both organisations. Links between the two companies were also maintained by James Wallace, who was appointed Consulting Engineer in 1854. At the time, he was Engineer for the Sydney Railway Company.

(45) ibid., p. 98.
Similar problems to those which affected the Sydney Railway Company also affected the Hunter River Railway Company. There were labour and financial problems and the Select Committee of the Legislative Council recommended in 1854 that the Government purchase the assets of the Company. The Government offered to take over the assets and liabilities and the Company accepted the takeover in July, 1855, nearly two years before the official opening of the line. (47)

12.3.2 THE GOVERNMENT PERIOD

By the time of the opening of the line from Newcastle to Maitland in 1857, the changed political, economic and social conditions, which had already forced the introduction of the new design at Campbelltown, also provided the background for the implementation of a new design of building on the Newcastle system. The buildings reflected the change in that engineers designed most of them to attract passenger traffic from the outset. There had been ample time from the Government's takeover in July, 1855, until the opening in April, 1857, to replace the private enterprise freight outlook with a passenger oriented perspective. Unlike the Sydney based system, the Government operated the Newcastle-Maitland line from the time of the opening.

Having taken over the ownership of the Hunter River Railway Company's line in 1855, the Government completed the railway with only one intermediate station (at Hexham) between the termini at Honeysuckle Point and East Maitland. The evidence suggests that this was a combination residence/office. (48)

Just as Whitton's arrival had a very substantial impact on railway station design on the Sydney based system, his influence was equally as great on the Newcastle system. Whitton inspected the Newcastle line in December, 1856, the same month he arrived in New South Wales. (49) His speed in visiting Newcastle shows his concern for the success of the line.

(48) Based on an undated, unsigned plan in State Rail Authority Archives showing alterations to the original structure.
Having already noted the inconvenient location of the Sydney terminus and the trouble it caused, Whitton took the opportunity to press for the extension of the railway eastward from the present Civic to the present Newcastle. In evidence to a Select Committee on the location of the Newcastle terminus, Whitton said that it would become a question of whether it would be worthwhile to work the line at all between Newcastle and Maitland, as the only means of making the traffic pay would be to have the terminus at a wharf (for transhipment of goods and passengers).

On the basis of Whitton's evidence, the Committee agreed to extend the railway eastward to the wharves area.

The Select Committee knew it would be some time before the line was extended. In fact, it was nearly two years before the implementation of the Committee's recommendation to extend the line one mile eastward from Honeysuckle Point to Newcastle. In order to meet the circumstances, the Committee recommended the construction of a temporary building at Honeysuckle Point. It said that the building would be "of the most inexpensive description". Two plans (Figures 178 and 179) exist for a timber building which was of three rooms, measuring 43 feet by 10 feet. Francis Bell, the Resident Engineer, approved in January, 1857, two plans for the same building. The only difference was in the awning. One plan shows the awning formed by extending the rafters, while the other shows the awning supported by five timber posts.

In the same year (1858) that the Government opened the new Newcastle terminus, the Government extended the Maitland terminus from the present East Maitland to the present Victoria Street. Nothing is known of the 1857 East Maitland terminus and the plans do not exist for that station and the 1858 termini at Maitland and Newcastle. However, a photograph exists of the 1858 building at Maitland as shown in Figure 14. It shared a gable roof as at Newcastle but was in brick, being approximately 80 feet in length. The approving officer is unknown.

(50) Smith, John Whitton, p. 35.
(52) ibid.
The building at Maitland in 1858 was very much in accord with the importance of the town which was at the time the commercial centre for the Hunter Valley and more important than Newcastle. Typical of the absence of interest that usually surrounded station buildings was the fact that no reference was made to it by the press, other than the fact that the Governor General walked through it.\(^{(53)}\)

Not only is it significant that both Hunter Valley termini were not of the covered train shed design as at Sydney and Parramatta, but both featured the same design of gable roof. On the basis that Whitton approved the new design at Campbelltown, he was most probably responsible for the gabled roof designs at Newcastle (1857) and Maitland (1858). As Engineer-in-Chief, he had ultimate control over the northern system and he had visited the line one month before Francis Bell approved the design at Newcastle. The same unobstructed facades of the building, particularly the transverse centre access and the roof, are evident in the hip design at Campbelltown and the gable designs at Newcastle and Maitland. Both these roof styles were simpler and cheaper to construct than the complex roofs on most of the combination office/residence buildings.

Whereas the Sydney-Parramatta buildings reflected the absence of thought for local passenger traffic and the adverse financial crisis facing the Company, those at Newcastle and Maitland were built two years after the Sydney examples, when the initial rush to the goldfields had largely subsided, new developers were opening additional coal mines and a larger population occupied the Colony. Maitland showed the importance of coaching traffic in its architecture and construction. It also displayed all the characteristics of Campbelltown. The use of timber for the Newcastle terminus is explained by the fact that it was known before the construction of the building that it would only be temporary, in accordance with the findings of the Select Committee.

It was no coincidence that new designs were introduced on two physically separated systems in the same year, 1858. Whitton was the main link though he was merely reacting to changed political, economic and social conditions.

\(^{(53)}\) Sydney Morning Herald, 18th May, 1863, p. 5.
The designs at Campbelltown and Maitland were the precursors of many buildings constructed between 1858 and 1888. Together, they reflected the first attempt at the implementation of standard designs which would later be used throughout the system.

The Government extended the line from Maitland to Lochinvar in 1860, though nothing is known of the terminus at Lochinvar, nor of the sole intermediate station, Farley. Nothing is also known of Tarro (1857), Victoria Street, Waratah and Newcastle (all in 1858).

12.4 THE POSITION IN 1860

The railways of New South Wales had become the first known system in the world to be Government owned by the takeover in 1855 of the two private companies. The implication of this for station buildings was in the need to take account of the policies, ideas etc. of political leaders. As well, engineers had to have regard to the policies of Railway Commissioners and users.

The Government appointed Whitton as Engineer-in-Chief to develop a rail system to cater for the Colony's needs. One of his functions was the design of station buildings which he undertook with vigour. His new designs at Campbelltown and Maitland in 1858 attest not only to his arrival and quick understanding of local conditions but to his awareness of the importance of passenger traffic to overall revenue. By 1860, the former freight only outlook had been forgotten.

Whitton and his assistants formed the nucleus of the Department of Railways within the Department of Public Works. Through this organisation, he had unified the Sydney and Newcastle systems though they remained physically separated until 1887. He brought standardisation in many areas of railway construction, including station architecture. However, the Sydney Railway Company had also achieved this to a limited degree.

In approving the design at Campbelltown, Whitton proved to be a man of compromise. Yet, he at the same time implemented a station policy which emphasised permanence through the use of brick construction and endeavoured to achieve a degree of attractiveness but this was mitigated by the more fundamental problem of shortage of capital funds.
By 1860, he placed brick structures at the major centres - Campbelltown, Parramatta and Maitland. Concurrently, he implemented a policy of constructing structures of different size without altering the design, thus achieving some economies in the planning stage.

With the appearance of permanent brick structures providing solely railway functions (as opposed to say, residential and office functions) on all three trunk routes, Whitton had forced a change in the macro function of structures. He had initiated a design for mainline duties. It was the first successful drive to provide permanent accommodation for staff and other users and to combine a wide range of duties.

Faced with the need to use a new design, Whitton followed the architecture then prevailing in the non railway sector. The most obvious link lay in the hipped roof and "classical" lines. (54) Thus, Whitton's reasons for adopting a particular design are secondary to his reason for deciding the application of a different pattern of architecture.

From the limited evidence available, Whitton used timber for smaller, intermediate structures where brick was not available. This again shows Whitton's flexibility.

Although Whitton had planted the seed for long term standardisation of design and materials at larger centres, he had not achieved any consistency in the design of structures for smaller, intermediate locations. With second class stations being the only design employed at larger centres, unknown engineers used either the combination office/residence (e.g. at Lidcombe), reverse skillion roofed (e.g. at Newtown) or non-standard gable roofed structures (e.g. at Tarro) or awningless buildings (e.g. at Petersham) for intermediate locations.

Above all, the theme which exists all throughout the period is the degree of economy which engineers employed and manifested in different ways. The Sydney Railway Company had achieved this with low initial cost structures. Whitton chose to achieve economies through the use of brick structures which gave longer life and lower maintenance costs.

(i) Books

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
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<tr>
<td>Paddison, L.I.</td>
<td>The Railways of New South Wales</td>
<td>Sydney, Department of Railways, 1955.</td>
</tr>
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(ii) Journals

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(iii) Official


New South Wales, Government Gazette, Sydney, Government Printer, 1858.

(iv) Annual Reports


(v) Theses


(vi) Newspapers

Sydney Morning Herald, various dates.
FIGURE 174 - PARRAMATTA

FIGURE 175 - BLACKTOWN
FIGURE 176 - PARRAMATTA JUNCTION

FIGURE 177 - PARRAMATTA JUNCTION
CHAPTER THIRTEEN

MID VICTORIAN 1861-1878
13. MID VICTORIAN PERIOD (1861-1878)

13.1 INTRODUCTION

At the commencement of the Mid-Victorian period the southern line had terminated at Campbelltown, the western line at Blacktown and the northern line at Lochinvar. During the period the Government intermittently stopped and started construction on all the lines but by the end of the period the three main trunk routes had progressed a further 290 miles to Wagga Wagga, 179 miles to Orange and 162 miles to Tamworth.

The period is of major architectural significance and is divided by a time of transition from 1868 to 1875 in which the Engineer-in-Chief introduced new designs to meet the requirements of a changed political, economic and social scenario. Buildings at Wallerawang, Bathurst, Goulburn and Gunning stand today as indicators of the changed conditions in the Colony.

13.2 PRE-TRANSITION (1861-1867)

For the first seven years of the Mid-Victorian period, there was no significant political, economic or social factor, such as those which resulted from the gold rushes, that caused a change to railway policy generally and to railway station architecture specifically. The designs used from 1861 to 1867 were those of the Early Victorian period. Not even the deterioration of the colonial economy caused any change.

Following the end of the major gold rushes of the mid 1850s, there was increasing unemployment as diggers returned to their traditional work tasks. The situation was aggravated by the rapid rise in prices as a result of the substantial increase in population directly associated with the gold rushes.

In Melbourne, bricklayers, carpenters, slaters and stonemasons fought for and received the eight hour working day, but it was the stonemasons who became the only successful tradesmen to receive the eight hour day in Sydney before the 1870s. From 1857 to 1866, there was extensive unemployment and until 1872 large numbers of men
position applied for the Western line over the Blue Mountains. In an attempt to minimise costs, Whitton had to adopt every money saving idea he could. Belbin and Burke said that Whitton began a task which for him must have been close to abhorrent - the stripping of every conceivable disposable feature from his building plan while still leaving a basically substantial mainline structure which, at a later date and with more funds, he would improve. Iron rails were substituted for steel, the maximum grade increased to 1 in 30, tight curves of eight chains radius, line-side buildings reduced or eliminated, cutting and road-bed widths narrowed, timber for sleepers and stonework for viaducts to be obtained locally on the principle of living off the bush."(9) It was thus the need for economy which was an important factor in the exclusive use of timber for station buildings between Penrith and Mount Victoria. However, another factor was the absence of towns of even a moderate size. The use of stone at Mount Victoria, Bowenfels and Wallerawang would seem related more to the local availability of the product rather than the importance of the centres.

Prior to the extensions from Campbelltown, Penrith and Maitland, engineers mostly restricted the use of timber to small, one room waiting sheds. With these extensions, they increasingly applied timber for larger structures and from this time approving officers turned to timber in future periods when it was necessary to achieve economies. Because station buildings are not fundamental to the safe operation of trains, station architecture became an early target for penny pinching and this aspect remained a feature of the history of station building construction.

Not only did the railway administration have to incur expenditure on new works, but it also had to face costs associated with the renewal of existing structures.(10) By 1865, the Superintendents of Way and Works were complaining of the high maintenance costs on all lines. In regard to Sydney, the Superintendent of Way and Works for the Southern and Western lines said that "unless it is

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intended very shortly to build a new station at Sydney, extensive repairs to the present building should be at once carried out".\(^{11}\) The Superintendent of the Northern line said that "the station buildings at Newcastle have been rather costly to keep in order.\(^{12}\) Both Superintendents referred to other structures, pointing out the need for many repairs. Of significance, the Superintendents for the Southern and Western lines indicated that the stations to Campbelltown were in "fair order", but pointed out that the Campbelltown platform, only seven years old, needed extensive repairs.\(^{13}\) It is surprising that the Superintendent found the structures not in better condition, considering their short life.

Whitton was faced with a difficult problem in achieving a balance between initial and maintenance costs. He chose not to introduce any architectural change, thus achieving design savings. Moreover, he made greater use of brick, particularly for smaller structures, such as at Burwood in 1864 (figure 180), where bricks were readily available. To some degree, his policy forced a chasm between Sydney and the remainder of the State because the Colonial capital had greater access to material and labour. In view of the proximity to materials, initial building costs would have been generally lower in Sydney.

With the decision not to introduce new designs, it was not possible for the railway administrators to say, at the opening of new lines, that the station building at the terminus was the best in the Colony. However, in an attempt to placate local residents, it was legitimate to say that a design was equal to that in other parts of the Colony. This was the case at Singleton in 1863 when Whitton was reported as having said that "he believed the building to be as good a station as any in the Colony".\(^{14}\) On other occasions, railway administrators thought so little about the worth of the building and extension generally that they would not hold an opening ceremony. One such occasion was in 1863 when the line was extended to Picton.\(^{15}\) At other

\(^{11}\) ibid., p. 47.
\(^{12}\) ibid., p. 50.
\(^{13}\) ibid.
\(^{14}\) Sydney Morning Herald, 21st May, 1863, p. 7.
\(^{15}\) Sydney Morning Herald, 10th July, 1863, p. 5.
times, engineers opened lines with the buildings uncompleted and this tendency became a joke in the press. In 1863, an article appeared in the Sydney Morning Herald saying that it appeared to be an Australian idea not to complete station buildings. (16)

It would seem that, despite Whitton's attempts to achieve economies, Government leaders were most anxious to eliminate the drain on the Colony's economy caused by railway construction and operation. One idea which received strong support was the leasing of the railways to private enterprise. The Government went so far as to invite tenders for the leasing of the entire system but in 1863 there was an upturn in patronage to the extent that the Government did a quick volte face and decided not to lease the system. (17) This quick change of intention was one of the hardships which Whitton had to face.

Although Whitton was hamstrung by adverse economic conditions and a high degree of political resistance against inland, steam powered railways, the Colonial Architect was not. James Barnett, the Colonial Architect from 1865, approved in 1867 the plans for stations at the termini of Sydney funeral trains at Regent Street and the Necropolis, shown in figures 65 and 66. Wilkins emphasises correctly that these two structures were most unlike other station structures on the system. (18) Barnett was not fettered by economics or politics and his two impressive structures dismissed the austerity of Whitton's examples. This was evident not only in the building designs but Barnett's use of stone which to that time Whitton had not used.

When the Mortuary station was under construction, the Sydney Morning Herald applauded the high level of workmanship, materials and the overall design. (19) It went on to say that all previous construction was carried out at a low standard but that the Mortuary building had

(16) Sydney Morning Herald, 26th May, 1863, p. 3.
(17) Sydney Morning Herald, 13th May, 1863, p. 4.
(18) R. Wilkins, A History of Railway Architecture in New South Wales, unpub. manuscript, State Rail Authority Archives, no pagination.
(19) Sydney Morning Herald, 6th April, 1868, p. 4.
set a "high key note". The widespread tendency to compare buildings was evident with the Mortuary station building, the Sydney Morning Herald arguing that "we defy the old country to shew or produce anything more true or thorough". The paper also commented that the station was most in keeping with its function and environment.

Whitton designed station buildings which reflected environmental factors of the time. Buildings up to 1867 were unembellished and continued the Early Victorian pattern. Three different designs were used. Where only minimal accommodation was required for the tiniest of settlements (below 50 people), small one room timber structures met basic requirements. These featured awningless gabled or skillion roofs with the pitch away from the platform face as in figures 32, 181 and 182.

The second design of structure was constructed of brick and combined residences and office. The roof line followed the floor plan and thus was normally of hip and valley arrangement. In all cases, only a single room was devoted to railway purposes. This was a booking office. Passengers were required to take shelter beneath the station awning, as in figures 183 and 184.

Whereas the combination residence/office building served centres with other established public facilities, such as post offices, and populations of between about 50 and 250 persons, the third type of structure provided facilities to meet the needs of the largest centres with populations of over 250, as in figure 147. In all types of buildings no embellishments were provided, except for masonry cornices for the third group which attained an attractive symmetry through the simple floor plan which was based on centre access to the platform. A plain hipped roof was possible because of the constant width of all rooms. Unlike the square design of the combination residence/office type, this third category was longitudinal.

(20) ibid.
(21) ibid.
(22) Based on comparison of designs in Part Two and data in appendix one to chapter seven.
The Colonial Government never stopped trying to achieve economies in railway construction. In 1863, the Government attempted to implement horse tramways with the construction of a branch line from Blacktown to Richmond. Whitton refused to be involved in the project. Through his continual support for the use of common standards, the Government reversed its earlier decision and opened the line in 1864 for use by conventional steam traction. Together with the Richmond branch, the Government in 1864 opened branches between East Maitland and Morpeth on the northern line and from Lidcombe to Rookwood Cemetery. Following the opening of these lines, the Government opened no further branch lines until 1879. The railway station buildings on the Morpeth and Richmond lines were combination residences/offices, built of brick to a previously used design.

Although it was rare to have any local interest in the architecture of station buildings, there was sometimes considerable interest in the location of the station. For example, in 1863 considerable public debate emerged about the location of the terminus at Morpeth which resulted in the line being opened short of the terminus. From about this time, there was increasing interest in the siting of stations and the history of stations in New South Wales is subsequently dotted with similar disputes.

Whereas structures on the main trunk lines to Goulburn and Murrurundi were of brick or timber construction, that at Mount Victoria, shown in Figure 185, on the western line was masonry but was of the same design as those on other lines. This was due to the local abundance of Hawkesbury sandstone. Two more stone structures were built on the western line in the transition period at Bowenfels and Wallerawang.

The stone buildings on the Western line received a high degree of contemporary press reporting. This stemmed possibly from the fact that many people, particularly reporters and journalists, travelled on the western line

(24) Sydney Morning Herald, 21st May, 1863, p. 9. Other locations where there were similar disputes include Murrumburrah, Honeysuckle, Broadmeadow, Albury, Lithgow and Wyalong.
to see either the Blue Mountains or the zig zag railway. The Sydney Morning Herald in 1868 stated that "the railway buildings along the mountainous portion of the western line are the best of the kind in the Colony, being neat, substantial, built of splendid materials and without fantastic adornments".\(^{(25)}\) It said that Mount Victoria "is a model station, and it would be well if the Government would repeat it as often as they got the occasion to build a railway station in the future. It is a plain structure, with a verandah and stone platform."\(^{(26)}\) From this description it would seem that the reporter was very impressed by the use of stone but he was obviously unaware that Whitton had been using the identical design at larger centres consistently since 1858. The reporter also overlooked the fact that the Mount Victoria structure was the first non-timber building for 44 miles distance from Penrith.

Whitton did not use stone elsewhere for station structures as a result of either the non-existence of good local stone, the high wages demanded by stonemasons or because the absence of sufficient masons in the country. Masonry was used five times in the mid and late 1860s in the Sydney and Blue Mountains areas purely because of the abundance of local supplies of Hawkesbury sandstone. The Necropolis building was more of a public funeral parlour than a station. The Government Architect's office had designed many non-railway public buildings and it was not surprising that stone was used for the Rookwood structure. Thus, the stone building at Mount Victoria, which was a regularly used hipped roof structure, is an indicator of materials policies whereas the Necropolis and Regent Street structures are monuments to the absence of political and economic bonds.

13.3 THE TRANSITION OF RAILWAY POLICY (1868-1875)

At the start of 1868, the rail system had extended to Moss Vale on the south, Wentworth Falls in the west and Singleton on the north. In the next eight years, 226 miles had been added. This compares with the 204 miles which the Government had constructed from the start of the system in 1855 to 1867. At the end of 1875, the southern line had reached Gunning, the western Kelso and the northern Murrurundi.

\(^{(25)}\) Sydney Morning Herald, 20th May, 1858, p. 6.
\(^{(26)}\) ibid.
Between 1868 and 1875, Whitton and his staff approved new designs for Goulburn, Gunning, Wallerawang and Bathurst. These new designs were introduced as a result of a major change in Government railway policy. In addition, the railways administration commenced to experiment on a much wider scale with the use of timber for buildings of more than one room. These changes introduced in this transition period had long term effects on railway station architecture.

Up to 1867, the Government had implemented a railway policy in which the premise was that expenditure, both operating and capital, should be met through the receipt of railway revenues. However, the colonial economy was so small that, taken to its fullest extent, there was no economic justification for any further extension of the rail system inland. In addition, economic conditions were adverse throughout the 1860s. Hence, if the Government of the late 1860s wished to extend the then existing lines, there would need to be a change in the existing policy.

In the transition period, the policy did change to one in which cost recovery had been replaced by much broader considerations of social and economic benefits. The press was aware of the changed railway policy and referred to it as "the new railway policy". However, it was much more difficult for the public to determine what was the nature of the "new policy". Press reports limited description to the extension of the southern line to the Murrumbidgee at a cost of $4 million but at the same time made no reference to extension of the other lines. Although not stated, the change involved the inland extension of the three trunk routes but at the lowest possible cost.

At the same period as the railway policy changed, there was a start to economic recovery in the Colony. At the outset of the 1870s, a twenty year period of prosperity commenced. It was also a time for the growth

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(26a) Sydney Morning Herald, 23rd April, 1868, p. 2.
(27) ibid.
(29) Gollan, Radical and Working Class Politics, p. 78.
of urban areas. As trade with the hinterland increased, the railways were progressively in a position to recover operating costs and direct charges, such as interest on the capital debt. Thus, on economic grounds, there was no need to change railway policy. Yet the policy did change.

Colonial politics replaced economics as the main policy criterion and took control of the railway for the next 100 years. By 1864, the Victorians had reached the New South Wales border at Echuca, while the Queensland Railways had pushed their line in a south western direction to Toowoomba, 60 miles from the New South Wales border in 1867. In 1869, the Victorian Government approved legislation for the construction of a line in a north-easterly direction from Melbourne to Albury. At that stage, the southern line in New South Wales had terminated at Goulburn that year and remained limited to that location for the next six years while the debate on the use of horse tramways continued. It was still two years after the Victorian line reached Albury in 1873 that the first extension of the southern line from Goulburn was made in 1875.

In 1866, settlers in the Riverina were complaining of the geographic disadvantages and the New South Wales Government "decided to push ahead with the southern rail line". The first positive step towards the implementation of some action occurred in 1868 when John Sutherland became Secretary for Public Works. He was a strong advocate for the extension of the railways inland and was regarded as a "good friend to the railwaymen". However, the legislature at the time was involved in the debate on the implementation of cheaper forms of railway construction and any change in policy had to wait until that matter was settled. Fortunately, he gained the necessary support when Parkes became the Colonial Secretary in 1872. Robertson had retained his portfolio since 1868.

New South Wales politicians at last realised that, if they did not act quickly, the Governments of Victoria and Queensland would take trade from Sydney. The old policy of cost recovery would not permit extensions of the New South Wales rail system to be undertaken quickly enough. Thus, the New South Wales Government changed railway policies.

In addition, Sir Hercules Robinson became Governor in 1872. He advocated "at every opportunity a spirited public works policy". (34) Sutherland, Robinson and Parkes shared similar views. It was Parkes who said in 1872 "that a large proportion of the population of this Colony enjoying all the advantages of this Government, whose letters are carried through our post office, who enjoy large tracks of our land at very moderate rates, have not their social and commercial interests connected with the Colony in which their industrial operations are carried on, is a state of circumstance which we must all regret". (35)

The people generally in New South Wales were at the time enjoying an ever increasing standard of living. Wages began to rise again from 1870 and continued to increase until 1878 and remained at a high level until 1885. (36)

At the same time, the New South Wales Government had increasingly easy access to funds on the London capital market. The Government took opportunity to ensure the dominance of the oldest colony and the hegemony of Sydney through the expansion of the rail system (414 miles opened 1870-79 compared with 264 opened 1860-69) and differential freight rates which favoured long distance cartage. Governor Robinson admitted in 1876 that the Colonies built their railways in the Riverina with "the object of securing by one device or another, for the rival capitals, as much of the traffic of the country as possible. (37)

The change in railway policy was reflected not only in speeches of the Secretary for Public Works, the Premier and the Governor, but in the decision of the New South Wales Legislature. Parkes, in 1872 was enunciating a policy which highlighted the importance of social gains and external economies (e.g. reduced travel times, increased access to colonial markets, increased mobility).

(35) N.G. Butlin, Investment in Australian Economic Development 1861-1900, Canberra, Australian National University, 1972, p. 366.
(37) quoted by McNaughton, Australia, p. 114.
In the same year, Parliament finally rejected the use of narrow gauge horse tramways when it agreed to the standard gauge extensions beyond Goulburn, Bathurst and Murrurundi.\(^{(38)}\)

Although a number of events occurred in 1872, the change of railway policy happened over a number of years. Butlin argues that the transition started in the late '60s and became more pronounced between 1870 and 1874.\(^{(39)}\) The change was evident in the architecture of station buildings.

By the late 1860s, Whitton would have been aware of the general upturn in economic activity. This was reflected in the continually growing operating surpluses.\(^{(40)}\) However, capital funds remained almost constant between 1866 and 1870 and dropped from that time until 1875.\(^{(41)}\) From an economic perspective, Whitton was faced with some degree of uncertainty.

On top of the economic climate, Whitton had to contend with the obsessions of politicians in endeavouring to extend railways inland at the lowest cost but as quickly as possible in order to prevent intrusions by rail systems of other Colonies.

Although Whitton was most aware of the methods to achieve economies in station building construction, he was restricted by his conventional British railway background to provide what he regarded as the "normal" functions of a station structure. For example, he paid no attention to the suggestion of issuing tickets on trains rather than employing an officer and erecting a building for that officer at stopping points.\(^{(42)}\) Had he adopted this suggestion, he might have been able to completely eliminate the need to erect buildings. However, Whitton should not be severely criticised because the suggestion would not have been capable of implementation where side-loading, compartment carriages were in use.\(^{(43)}\)


\(^{(39)}\) Butlin, Investment in Australia, p. 360.

\(^{(40)}\) Indicated in table 5, chapter 7.

\(^{(41)}\) ibid.

\(^{(42)}\) Sydney Morning Herald, 4th May, 1868, p. 4.

\(^{(43)}\) Side-loading carriages had no access doors between carriages and compartments within carriages. Thus, the guard would not have been able to proceed through the train whilst it was in motion.
Whitton was obviously angry when he appeared before a Select Committee of the Legislative Assembly in 1869 which the Parliament appointed to examine the question of rail extensions beyond Goulburn, Bathurst and Murrurundi. When asked whether less costly structures could be built beyond these three inland centres, Whitton said that he did not believe any system in the world "can show such miserable station houses as some we have here". In reply to a question about the possibility of using timber buildings, Whitton stated that "I should certainly not like to see worse stations than we put up here. After all, the cost of stations amounts to a very small proportion of the total cost of the lines". The Committee did not understand Whitton's answer so it again asked him about the use of timber structures being cheaper. In response, he said: "I do not think so; in a very few years they would have to be renewed. My own impression has always been that if we put up buildings of any kind for the Government, they should be respectable buildings; all ornamentation should be avoided, but the buildings should be substantial and fit to look at. Can anybody conceive anything worse than that wretched building of ours at Redfern? It ought to have been set fire to years ago".

The Committee never asked Whitton what type of structure he would like to see constructed. The nearest he got was a response to the statement "I suppose you would be in favour of having railways enclosed in every case?" Whitton commented "Decidedly I should". The press often carried articles condemning the official policy to construct cheap railways. In a letter to the Editor of the Sydney Morning Herald, one correspondent said in 1868 that "everything is being neglected in order to show a decrease in expenditure". He argued that "we are wearing out the bones and sinews of our railways to such an extent that it

(45) ibid.
(46) ibid.
(47) ibid.
(48) ibid.
(49) Sydney Morning Herald, 20th April, 1868, p. 5.
will take an enormous outlay in the long run to make up for the present economy". The correspondent was emphasising the point that sacrifices in initial, capital expenditure resulted in increased maintenance costs. This was precisely the point Whitton was arguing.

The precise directions which the Government or the Railway Commission gave to Whitton about the standard of structures are unknown. However, it is clear that he was required to act with frugality in mind. Whitton's statement about the cost of buildings being a small cost of total costs is reflected in the expenditures for the extension between Goulburn and Yass which the Government opened in 1876. Out of a total expenditure of £392,424/0/11 the cost of station buildings was £17,888/1/10, representing 4% of the aggregate expenditure. Suggestive of the measures which the Engineer-in-Chief adopted to achieve the maximum economies was the decision to call fresh tenders in 1868 for the erection of the building at Muswellbrook on the basis that the initial tenders were considered too high.

The high cost of renewals continued to be a problem for Whitton. The Commissioner reported in his report for 1872-75 that "renewals continue to be very heavy both to permanent way and buildings, particularly on the southern line, and many additions were made to stations". Whitton was in a position to appreciate the low standard of structures in New South Wales from his overseas trip in 1868. It was in this year, during his absence, that James Mason in his capacity of Acting Engineer, approved the plan for the terminal structure at Goulburn. This was the first ornate building which railway engineers had approved.

(50) ibid.
(51) New South Wales Parliament, Return of Works, Railway Reports and Papers 1877-78, State Rail Authority Archives, p. 3.
(52) Sydney Morning Herald, 22nd April, 1868, p. 9.
(54) The Regent Street and Necropolis buildings were ornate and of earlier date but were approved by James Barnett, Colonial Architect.
As such, it added a fourth tier to the number of different standards of designs available for selection by Whitton and his colleagues. It was also the first occasion in which Colonial newspapers gave substantial coverage to a railway building.\(^{(55)}\) The impact of this was widespread. From 1870 onwards, the press and the public started to request improvements to existing structures and the provision of high standard structures similar to which the railway administration had provided at Goulburn and other locations. In this way, Whitton now had to contend with additional sources of pressure - the press and the public. He had to balance these against the policies of ever-changing governments as well as prevailing economic conditions.

The increased public awareness is first evident in the early and mid 1870s. Where no shelter existed, the public now asked for it. The Newcastle Chronicle said that Hamilton Station would be of more convenience "if the railway authorities would put themselves at a very little more expense by erecting some sort of shelter for passengers".\(^{(56)}\) In other cases, the public demanded better facilities where some already existed. At Waratah, the Newcastle Chronicle said that the station master's office and the goods shed were "simply ridiculous for the purpose they are intended to serve".\(^{(57)}\) This was not an isolated case, as evident by the fact that the public demanded increased accommodation at the adjoining station, Hexham, in 1874.\(^{(58)}\)

The public employed not only the press but also Parliament to voice their desires for better facilities. In 1876, 610 people petitioned Parliament arguing that they "suffer great inconvenience from the inadequate accommodation now provided at the East Maitland and Morpeth Junction railway stations".\(^{(59)}\) They requested "some immediate action be taken to afford relief to the public from the inconveniences".\(^{(60)}\)

\(^{(55)}\) Goulburn Herald and Chronicle, Railway Supplement, 29th May, 1869, no pag.

\(^{(56)}\) Newcastle Chronicle, 9th November, 1872, p. 2.

\(^{(57)}\) Newcastle Chronicle, 13th August, 1872, p. 3.

\(^{(58)}\) Newcastle Chronicle, 8th September, 1874, p. 2.

\(^{(59)}\) Petition to Parliament, Railway Papers, 1875-77, State Rail Authority Archives, p. 298.

\(^{(60)}\) Ibid.
The Sydney press was most critical of the Sydney terminal station. Echoing earlier techniques of comparing one station with those in other parts of the Colony, the Sydney Morning Herald said the building was "the ugliest and least commodious structure on the line, and is always a subject of scornful comparison by visitors from neighbouring colonies. Probably there is not such another metropolitan station to be found in the world." (61) The paper referred to the plans "for a commodious and ornamental building on the present site". (62) However, it said that "no immediate returns will occur to the revenue that would compensate for very large expenditure, and for that reason the cheapest of all feasible plans is the one most likely to be acceptable." (63) The Herald's comments identified two characteristics of station building policy in New South Wales. Firstly, structures were perceived as not being fundamental to the operation of the railways and, secondly, administrators erected buildings to some degree as symbolic indicators of Colonial progress. It is difficult to understand how these two policies could co-exist as the continual need for economy would preclude the erection of high cost, ornate buildings. Whitton overcame the difficulty by limiting the number of high class buildings to only the most important locations whilst at the same time standardising architectural policy for secondary and other structures and even for the high class buildings where possible.

The Sydney press was not the only source of criticism of the Sydney terminal station. The Victorian Parliamentarian, Angus MacKay, visited New South Wales in 1870. He said "the Sydney railway station, I need hardly say, did not strike me with admiration, but it is not much inferior to that in Spencer Street, Melbourne. In both cases, the array of wooden sheds are mere makeshift; and

(61) Sydney Morning Herald, 28th May, 1868, p. 5.
(62) ibid.
(63) ibid.
from what I subsequently saw of the stations along the line of railway over the Blue Mountains, I am inclined to think that the future of Sydney railway stations will not be much inferior to the future one of Melbourne. We have begun to repent of our extravagances of railway stations, whereas the New South Wales people appear to be smitten with the desire of building these extravagances". (64)

On his visit to the west he described the Wallerawang building as "a handsome two stored stone building". (65) In regard to Bowenfels, he said that "the buildings are very neatly constructed of freestone, and all the masonry is set in cement. There is a general impression here that with reference to these stations the Sydney Government is making the same blunder as was made in Victoria, in constructing the railway buildings on too grand a scale". (66)

MacKay's remarks echoed the thoughts of many New South Wales Members of Parliament. Whitton must have been stunned to read MacKay's comments, especially since Whitton considered the New South Wales structures to be sub-standard. MacKay had falsely based his comments on a very small number of unembellished structures. He must have been influenced by the use of stone. He would not have known that the structures he passed were and would be, except for one further case, the only stone structures in the Colony. He had not seen the Colony's only embellished station at Goulburn.

In 1868 Mason approved the design for Goulburn as shown in figure 186. It was a structure of opulence commensurate with Goulburn's importance. The local newspaper in 1869 described it as "Anglo-Italian" (67). The paper said it was "considered superior to any other building of the kind in the Colony". This was not difficult considering the very plain designs which had been used up to 1869. For the first time the roof was not a simple gable or hip arrangement. It featured a hip and valley with low pitched transverse gables at the ends of the building. A cupola divided the main roof ridge line.

(64) A MacKay, Visit To Sydney and Cudgegong Diamond Mines, Melbourne, George Robertson, 1870, p. 15.
(65) ibid., p. 24. He incorrectly called it Pipers Flat.
(66) ibid., p. 22.
(67) Goulburn Herald and Chronicle, no pagination.
Being the Colony's first ornate building, it was now possible for administrators to talk of the structure as being "a fine, handsome structure, considerably superior to any other building in the Colony". (68) Emphasising the symbolic role of station buildings, the Mayor of Goulburn exclaimed at the laying of the foundation stone that "if another (station) had to be laid hereafter, it would be simply because of the increasing prosperity of Goulburn necessitating a larger station than the present." (69) Clearly, town residents saw the building as a monument to the progress of the district it served.

Whilst the roof pattern was clearly different from earlier examples, the building at Goulburn retained the low pitch of the roof, overall symmetry and end wings of earlier structures. The Goulburn station design was linked to those built at Mittagong and Moss Vale. This same type of roof pattern would be used frequently until 1887. At 108 feet in length, it was five feet shorter than Moss Vale, yet contained four additional rooms provided by the width of the structure beneath the transverse gables.

The local newspaper described the facilities, which included separate refreshment rooms for men and women, and said it contained "all things that are required for the convenience of passengers". (70) The high standard of construction and the facilities provided are not surprising considering that those who first issued the prospectus in late 1848 stated that Goulburn and Bathurst were the destinations of the then proposed railway company. Goulburn and Bathurst were at the time the two largest centres west of the Great Dividing Range. They both had a long history and each received station buildings which reflected the importance of the towns.

The erection of an ornate building at Goulburn, subsequent extensions to existing structures and the reconstruction of existing station buildings demonstrated the perception of engineers to respond in the majority of cases to the latent and often unexpressed needs of travellers.

(68) Sydney Morning Herald, 14th May, 1868, p. 5.
(69) ibid.
(70) Goulburn Herald and Chronicle, no pagination.
and users. Where engineers used embellishment, they did so as a symbolic indicator of local progress. It was not excessive or inappropriate. Similarly, the extension or reconstruction of buildings simply showed that engineers correctly perceived the necessity for catering to symbolic as well as functional needs.

Mason's Goulburn structure was the first use of an integral refreshment room and a separate telegraph office. Apart from this, it was similar to previous structures, except that under each end of the roof line, the building facade was widened to allow for the provision of two rooms as shown in figure 186. Entry was the same as at Campbelltown, being in the centre. Access to all rooms was from the platform. This meant that residents who may have been using the telegraph, parcel or even refreshment facilities and not joining a train had to enter the platform in the first instance. This would have provided considerable congestion with the arrival or departure of trains. Also of significance is the absence of office accommodation for traffic inspectors and other officers who may have been employed in view of the station's function as a temporary terminus. The absence of general office accommodation for staff other than those directly concerned with the operation of passenger trains at the platform is a feature of New South Wales station architecture.

Although the southern line stopped at Goulburn from 1869 till 1875, the Government continued work on the northern and western trunk railways. The structures on the northern line between 1868 and 1975 were similar to those built on all lines up to 1867. However, in 1869, Whitton approved a design for Wallerawang as shown in Figure 187. Using Hawkesbury stone, he approved a two storey combination residence/office. It featured a gable roof and, equally important, it represented the first combination structure to provide more than a ticket office. At Wallerawang there was, in addition to a ticket office, a separate ladies' waiting room and a telegraph room.

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(71) Plan dated 28th January, 1868, signed by J. Mason, State Rail Authority Archives.
(72) Plan dated 21st April, 1869, signed by J. Whitton, State Rail Authority Archives.
A further variation of the combination building was used for other intermediate stations. Facilities similar to those at Wallerawang were planned but the residential accommodation was provided behind the railway office at ground level rather than above them (e.g. Rydal & Quirindi in Figures 8 and 9). The transition from the 1860s to the 1870s did not see the elimination of earlier designs. Engineers continued to use them up to 1887, but as the years progressed decreasing examples were built. The policy of building structures commensurate with the importance of local centres continued.

The response to the new political pressures placed on Whitton was seen in his approval for the station building at Raglan in 1873. For the first time, the Engineer-in-Chief approved the use of "temporary" structure. By adopting this approach, Whitton achieved an initial economy through the use of timber for exterior walls. He also achieved economies by applying a gabled roof to the structure, in place of the hipped roof which he had used at all centres with a population of over 1,000 since Campbelltown in 1858. After the approval of the design for Raglan, Whitton reverted to the use of the more traditional design at Kelso as in figure 189.

A year later, in 1875, Whitton approved two plans which further reflected the changed political, economic and social conditions. Whitton had to respond to Parliamentary approval for the inland extension of steam powered railways.

At Gunning, he approved a brick, four room structure, 54 feet 6 inches in length with a gable roof. A brick men's toilet was detached and its gable roof was transverse to that of the main building. The use of the gable roof at Gunning was the first permanent time in which the hipped roof had been replaced and in which the parapeted and juxtaposed men's toilet had been separated from the main structure. As shown in figure 29, this design was to be used increasingly up till 1894 and almost exclusively from 1877.

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(73) Plan dated 14th January, 1873, signed by J. Whitton, State Rail Authority Archives.

(74) Plan dated 30th March, 1875, signed by J. Whitton, State Rail Authority Archives.
The building at Gunning was not elaborate. It cost £1,514/7/8. The structure was designed with the knowledge that there was a need to provide many buildings for the extension of the trunk lines inland and that it was essential to build cheaper constructions for the many smaller locations. The building at Gunning measured exactly half of the length of the structure at Goulburn and the gable roof resulted in lower construction costs than the previously built hip roof design used up till 1887.

The opening ceremony at Gunning manifested several features of railway station construction. Firstly, the line was opened without the completion of the station building. Secondly, it was reported by the Sydney press as a "second class station". This was official recognition of the fact that the architecture of buildings had taken a clear change, namely that the engineer-in-Chief had decided to implement a design of lower standard than those which he had hitherto erected. Although the building was called "second class", it in fact represented the third highest style of design that Whitton had introduced. A third feature of station building policy evident at the opening ceremony was the ever present need for economy. The Minister for Public Works indicated that the extension to Gunning was "the first extension done at a cost of under £7,000 per mile" and said that, whilst it was possible to construct railways at that price, the Government would "not stop until a network of railways is extended over the length and breadth of the country".

Whitton was not enthusiastic about the cheapness of the railways and the press reported that he "intimated himself very plainly that he did not boast of this cheapness, and that in his own judgment it would have been better to have spent another thousand pounds a mile on the line, and make it more substantial".

(75) Documents laid before Parliament concerning the Goulburn-Yass Railway, Railway Reports and Papers 1877/78, State Rail Authority Archives.
(76) Sydney Morning Herald, 4th November, 1875, p. 3.
(77) ibid.
(78) Sydney Morning Herald, 19th November, 1875, p. 5.
(79) ibid.
With the construction of the Gunning building, Whitton had changed his construction policy. Up till 1868, he had a three tier policy. This changed to a four tier policy with the approval of Goulburn in 1868. He used reverse skillion roofed types at the smallest centres, combination structures at larger centres, the initial centre access station (e.g. Campbelltown) for important locations and first class designs for the largest of centres, as at Goulburn. With his Gunning plan, which Eddy later called a "standard roadside station", Whitton restricted the use of the number of designs to be used on any one extension to three, using the Gunning design to replace both the combination and centre access designs. However, there were subsequent exceptions to this principle but the divergence from policy was attributed to the autonomy of the Existing Lines Branch after its split from Whitton's responsibilities in 1876.

Whitton in 1877 changed the floor plan of the Gunning design by eliminating the parcels office and using what was to be a standard floor plan until 1892, namely a centre general waiting room with access flanked on one side by a ladies' waiting room and on the other side by a general waiting room. At Gunning, the general waiting room had entry by two separate doors but this was replaced in subsequent examples with a single door. There were additional benefits of the Gunning design arising from the location of the toilets in a separate building and these have been referred to in Chapter 8.

In the same year (1875) as Whitton approved the new design at Gunning, he also approved a new design for use at Bathurst, as shown in figure 190. Its exterior features were impressive. It was the first of many buildings at the largest centres to have a high pitched roof. It remained the only Jacobean structure on the system. The Jacobean influence was clearly evident in the tall chimneys and the scalloped barge boards on the transverse gables which broke the roof facade. At 116 feet in length it was the longest building in the State outside the earlier train sheds, though it contained fewer rooms. Moreover, Whitton had for the first time dispensed with the use of parapeted...
"wings" at the building ends. At Bathurst, he continued to use "wings" but replaced the parapeted roof with a pitched roof, the ridge being lower than the main roof ridge and hipped at the end. This change was strictly ornamental.

Besides the uniqueness of the design at Bathurst, the building was significant in that, together with the elaborate structure at Goulburn, it represented the initial attempt to provide a building with a greater degree of embellishment that would reflect the importance of the town served. Like Goulburn, the building at Bathurst was situated at the end of a long street and could be seen from a great distance.

Internally, the Bathurst structure was even more significant than the exterior for Whitton had, for the first time, provided public access to the parcels office from the road approach and separate from the centre access. He located the parcels office under the transverse gable at the Orange end of the platform and residents could carry out parcels business without entering upon the platform. For the first time, engineers had physically separated access to various functions and, by doing so, had responded to the high level of community use of station facilities by other than travellers. However, he made no provision for refreshment facilities.

Although no cost is known for the building alone, comparison costs of the station buildings, station master's residences and goods sheds at Bathurst, Orange and Dubbo are available. The cost for Bathurst was £18,884, for Orange it was £7,463 and for Dubbo £10,461. (81) Since all three had corrugated iron clad goods sheds and two storey station master's offices, it is obvious that the Bathurst structure was a very high standard, first class station.

To some extent, Whitton had catered for the needs of rural dwellers at the expense of city people. In 1871, he approved a new terminal station for Sydney as shown in figure 12. It was a two track train shed, constructed of brick and embellished with stone. Although it was well

(81) Answer to Question No. 1; Votes and Proceedings of the Legislative Assembly, No. 9, 22nd September, 1885, Railway Papers and Reports 1885/86, State Rail Authority Archives.
proportioned and attractive, the building was small, keeping in mind that its two tracks had to serve all trains on the southern and western lines. However, he was opposed to metropolitan railways in the 1870s because he considered they would divert funds from the extensions of the railways inland. (82)

As early as 1857, Whitton had proposed the construction of a terminus closer to the city than the site at Redfern, notwithstanding his opposition to metropolitan railways. In the late 1860s, the then Secretary for Public Works discussed with Whitton his scheme to erect a terminus at Hyde Park. (83) However, a change of Government brought John Sutherland to the portfolio of Secretary for Public Works in 1868 and, notwithstanding that his suburban electorate was Paddington, he said that "the interests of the City would be better served if money were expended in extending railways further into the interior of the Colony". (84)

That being the case, Whitton apparently decided to rebuild the Sydney terminus on only a moderate scale. He never considered the 1871 rebuilt Sydney terminal as a substitute for a city terminus. (85) After the construction of the rebuilt Sydney terminus, he continued to press for a new terminus closer to the city.

Although opposed to metropolitan railways, Whitton approved the reconstruction of some suburban stations from 1874. This followed the upsurge of residential development along the Sydney-Strathfield line. The designs he used were those employed in the country. Whilst there was no distinctive suburban design of railway station building, all new designs had to that stage, and up till 1891, been initially implemented in rural areas.

By 1875, the transition period had come to an end. Whitton had experimented with gable roofs at Raglan and Kelso and, in doing so, he achieved a standard design of structure for smaller locations. His hipped roof design

(83) I.A. Brady, Eastern Suburbs Railway, Sydney, Australian Railway Historical Society, 1979, p. 5.
(84) cited by Brady, ibid.
which he first used at Campbelltown in 1858 had been mostly used for locations with populations over 1,000 and, all but Newbridge, were 80 feet in length or longer. The Gunning design was to provide a smaller structure for smaller centres - something that had been lacking up to 1875. He had tried the use of temporary structures as at Raglan and of new floor plans as at Bathurst.

In the transition, Whitton also experimented with new materials. The western line had been used as the only major example of masonry construction and there is a strong possibility that timber was used for the first time for structures larger than one room at Tarro in 1871, Katoomba in 1874 and Breadalbane in 1875. In addition, small brackets were used to support the narrow awnings at Katoomba and Breadalbane, as in Figures 36 and 191.

At the end of 1875, Whitton had not only experimented with station design - he had successfully adjusted architecture to meet changed political, economic and social circumstances. The politicians wanted a cheaper structure that could be used for railways over and west of the Great Dividing Range and he met this challenge successfully with his standard roadside design at Gunning in 1875. In the same period, the provided first class designs, as at Goulburn and Bathurst, to function as symbolic monuments to rural progress and had altered floor plans to cater for community requirements. In short, station designs had changed generally in accord with changes in the environment.

13.4 POST TRANSITION (1876-1878)

From the mid 1870s there was a "greatly expanded and costly (railway) building programme". At the start of 1876, the Government had opened 509 miles of railway lines and, by 1878, 688 miles had been opened. This represented an increase of 35% in three years, compared to 17% for the previous 3 years (1873-75), and 17% for the years 1870-72. Hence, the last three years of the Mid Victorian Period was the start of the rapid expansion of the system. Although the Government accelerated the construction of lines,

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(86) Plans for these structures do not exist.

(87) D.N. Jeans, An Historical Geography of New South Wales to 1901, Sydney, Reed, 1972, p. 187.
Whitton did not employ any new designs. It was very much a time of architectural stability. Indeed, the establishment of what was to be a standard design of building, as constructed at Gunning in 1875, was a primary factor in the ability of the Government to extend the lines as much as it did in the years 1876 to 1878. The eagerness to extend the southern line as quickly as possible was manifested in the further use of temporary structures at several locations on the southern line (e.g. Cootamundra and Junee Junction).

On the western line beyond Orange, an unknown identity designed a series of brick, two room gabled roofed structures. These were the same design as that at Gunning, only smaller. The use of brick at these locations confirms that Whitton's policy of using brick where possible survived the transition period. A trend to plan structures as closely as possible to local user needs was developing. This was also evident in the rebuilding of some small buildings in the Sydney urban area.

When the southern line reached the Sydney side of the Murrumbidgee River at North Wagga Wagga and the northern trunk was on the Sydney side of the Peel River at West Tamworth, Whitton approved a special adaptation of the standard hip roofed building as in figure 192. The structures measured 85 feet by 24 feet and the roof pitch was designed to form integral awnings on both sides. These were the only two structures of this pattern to be built on the system. Despite the use of the buildings at North Wagga Wagga and West Tamworth as terminal structures for one year and three years respectively, Whitton made no additional provision in the buildings for staff or passengers or refreshment facilities. It is significant to note that the two buildings featured separate men's toilets, despite the heritage of the design to earlier hip roofed buildings which had the toilet adjacent to the main station building. The separation of the toilet from the main building is indicative of the influence of the design Whitton approved at Gunning in 1875.

The urban areas of Sydney and Newcastle also received Whitton's attention. He had started rebuilding metropolitan stations in 1874 at Ashfield as in figure 10. Newtown and Burwood received new buildings in 1877 and 1878 respectively. The latter had ornate columns supporting the awning. The high pitched roof was hipped with a transverse gable. This building typified the continued use of the hip
roof, but from 1877 the formerly full hip roof was cut by one or more transverse gables. Low pitched roofs were still employed (e.g. at Harden', as in figure 193) but the high pitch was becoming more popular and in 1880 the last low pitched roof was erected at Tamworth, as in figure 194. The rebuilding of suburban Sydney stations was indicative of the "rising number of western suburban commuters from 432,807 arriving (at Redfern) in 1873 to 2,052,989 in 1880". (88)

In Newcastle, there was a similar increase in urban development. In 1876, the colony's only two storey station building (other than combination residence/offices) to be planned was started at Newcastle terminus, as in figure 152. This arose because Newcastle terminus was the administrative headquarters of the isolated northern line, unlike the Sydney terminus which did not provide administrative accommodation for non-operational staff. It was a most elaborate structure, embellished with masonry. Both the stone and the stonemasons had to be brought from Sydney. (89) The features used on the building were clearly derived from those at Goulburn (e.g. roof line, cupola) and North Wagga Wagga (e.g. hip roofed toilet).

The stimulus for the building at Newcastle came from local sources. By the mid 1870s, Newcastle residents were aware that high quality structures were being erected in other parts of the Colony. The local press initially endeavoured to obtain a new building by arguing that the seniority of the staff at the station should be sufficient for a new building. It said that "it is lamentable that their talents should be wasted in the 'den' as the present station house is." (90) After that approach failed, the press in June, 1876, tried another tack. It cited the familiar reference to the superiority of other station buildings elsewhere in the Colony. (91) It condemned the local inhabitants and travellers for not previously protesting about "the scandalous inconveniences of the diminutive shanty known as Newcastle railway station". (92) It argued

(89) Newcastle Morning Herald, 10th October, 1877, p. 2.
(90) Newcastle Morning Herald, 29th May, 1876, p. 2.
(91) Newcastle Morning Herald, 9th June, 1876, p. 2.
(92) ibid.
that the building was "an intolerable disgrace to the district".\(^{(93)}\) The press went on to say that "throughout the whole of the Colony, or of the other Colonies, there does not exist a railway station so utterly unsuited to its requirements as that of Newcastle which should, by virtue of its position as the second city of the Colony, possess at least the second best railway station."\(^{(94)}\)

The local press in Newcastle also took the opportunity to condemn the floor plan of the existing structure. It condemned the positioning of the men's toilet and referred to the odour from the room as a "compound of villainous smells that disgust the olfactory nerves."\(^{(95)}\) The problems which were inherent in Whitton's 1858 design at Campbelltown were manifest at Newcastle. The Newcastle paper said that "the malodorous atmosphere that surrounds the latrines - situated above all places in the world - in close proximity with the ladies' waiting room, will soon induce him (i.e. a traveller) to hurry away as soon as possible from such pestitential precincts, at the risk of leaving part of his luggage or baggage behind him."\(^{(96)}\) By separating the men's toilet away from the main building as in the new design first used at Gunning in 1875, Whitton responded effectively to a very real problem faced by users of the station facilities.

Not only did Whitton respond generally to the poor sanitary conditions, but he arranged for a replacement structure to be built at Newcastle. Local residents were most pleased with their new building, it being called a "really fine structure"\(^{(97)}\) and a "very handsome and imposing (building)".\(^{(98)}\) With the completion of the new structure in 1878, Newcastle people remained contented with the building for the next 90 years.\(^{(99)}\)

In the year of the completion of the Newcastle building, James Mason as Acting Engineer, approved a new building for Maitland, as in Figure 195. It was even more

\(^{(93)}\) ibid.
\(^{(94)}\) ibid.
\(^{(95)}\) ibid.
\(^{(96)}\) ibid.
\(^{(97)}\) Newcastle Morning Herald, 8th April, 1879, p. 2.
\(^{(98)}\) Newcastle Morning Herald, 10th July, 1878, p. 2.
\(^{(99)}\) Local pressure for a new structure was next evident in 1964. See Newcastle Sun, 20th May, 1964, Press Clippings File, Newcastle Public Library.
identical than Newcastle to the structure he approved for Goulburn 10 years earlier. Maitland was a very important centre and in 1878 the price of coal reached a peak between 1824 and 1896. In addition, 1878 was the peak year for ship arrivals between 1864 and 1884 with 1,407 vessels entering the port. In both Newcastle and Sydney, increased community prosperity was reflected in replacement structures that were far more ornate than those they replaced.

The last three years of the Mid-Victorian Period saw only a minor variation of designs at North Wagga Wagga and West Tamworth. Not even the two storey structure at Newcastle possessed any characteristics not previously evident. Whitton and Mason altered the size of structures to meet the needs of the towns served but this was merely a refinement of existing practices and not a policy change.

13.5 THE POSITION IN 1878

Community aspirations about the symbolic and functional role of station buildings were manifested in buildings by the use of high class, embellished structures providing a wide range of public services. At the same time, Whitton restricted the use of large, ornate buildings to centres with over 1,000 people. The choice of Italionate for Goulburn and Jacobean architecture for Bathurst reflected general design trends in the non-railway sector.

The erection of ornate structures at Bathurst and Goulburn reflected a policy of anticipation and realisation. Whitton and his colleagues anticipated traffic requirements and realised the possibility of public outcry if they did not erect buildings which would reflect local symbolic and functional needs. They virtually had no choice in the construction of new lines but when traffic levels were not fulfilled, as would be the case in the second half of the 1880s, politicians were only too eager to criticise railway engineers for poor planning. Whitton's problems were to be compounded, not simplified, following the move by the Government to hive-off to the Commissioner for

(100) J. Windross & J.P. Ralston, Historical Records of Newcastle 1797-1897, Newcastle, 1897, pp. 56 and 65.
Railways in 1876 responsibility for the design of replacement structures. There was often a fine line between a definition of new works and renewals but Whitton in the second half of the 1880s would receive adverse criticism in both instances.

Whitton continued to implement his policy of brick construction where practicable, despite the 1869 Select Committee's disapproval. In the Mid-Victorian period, he implemented a policy of rationalising the number of designs in use. By 1878, engineers were actively implementing that policy. Whitton had changed the macro function of station buildings from a mainline railway building to an all-purpose structure which could be and was used not only on main trunk routes but also on connecting and branch lines. He did this by a reduction in overall size and a re-arrangement of floor plans.

Whitton had to some degree provided the basis of later censure by too rigidly applying the use of standard floor plans and designs. Nevertheless, in the Mid-Victorian period, he had catered for the public's perspective of station buildings as symbolic monuments; he had achieved economies through design standardisation and implemented operational efficiencies by altering floor plans. He had a systematised building design by 1878 but it would be his very own system that would contribute to his public censure a decade later.
(i) Books

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Goulburn Herald and Chronicle, 29th May, 1869.
Newcastle Chronicle, various dates.
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Newcastle Sun, 20th May, 1964.
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FIGURE 181 - BUNDANNOON

FIGURE 182 - MENANGLE PARK
FIGURE 185 - MOUNT VICTORIA
SINGLE STOREY PART WITH SLATE ROOF

FIGURE 186 - GOULBURN
FIGURE 187 - WALLERAWANG

FIGURE 188 - BREVONGLE
FIGURE 193 - HARDEN BUILDING WHICH HAS DARK ROOF COVERING

FIGURE 194 - TAMWORTH
CHAPTER FOURTEEN

HIGH VICTORIAN 1879-1892
14. HIGH VICTORIAN PERIOD (1879-1892)

14.1 INTRODUCTION

The High Victorian period is divided into two parts. The first covers the years from 1879 to 1885. This was a period of unprecedented railway growth. The years 1880-1885 have been described as "the great railway years". The second part relates to the years from 1886 to 1892. In these years, the previous massive growth was stopped and declined as the railways administration adjusted to the slowly worsening economic conditions which culminated in the 1891-93 depression. Whilst engineers introduced no new designs in the first period, they tried several new and cheaper designs in the second. These new designs were reflections of changed environmental characteristics.

14.2 THE BOOM YEARS (1879-1885)

In 1879, the southern line had terminated at Bomen, the western line had terminated at Orange and the northern line had terminated at West Tamworth. In March of that year, the Government had opened part of its first major inland branch railway - to Breeza. The 734 miles of railway open to traffic in 1879 was extended by a further 1,000 miles in the next five years and in 1885 1,732 miles were available for traffic. Over the same period, passenger journeys increased from 4.5 to 13.5 million while the amount of capital invested had grown from £10.5 to £22. Measured any way, this was a boom time for the railways.

The dream of politicians to reach far inland was fulfilled in this six year period. The railway reached Albury on the Murray River in 1881, Hay on the Murrumbidgee River in 1882, Bourke on the Darling River in 1885 and in 1886 Tenterfield, near the Queensland border. All of these lines were positioned to ensure trade did not cross New South Wales borders into other Colonies. As in previous years, the rail system was rurally biased and what initially appeared as suburban lines, such as the Homebush-Hornsby line in 1886 and the Sydney-Waterfall line of 1884-1886, commanded "a large measure of support from provincial centres"

(2) ibid.
because of their ultimate rural destinations. There was no serious interest in the construction of a Sydney metropolitan rail system. The Tramways Extension Bill of 1880 nullified advocates of suburban railways in the first half of the 1880s through the introduction of publicly owned street tramways in Sydney. The construction of metropolitan railways was not considered until after 1885, at the time of the speculative housing boom.

Whitton had chosen to utilise the same station designs as he had introduced in the Mid-Victorian period. First class stations, such as Albury shown in figures 30 and 31, and second class stations, such as at Narrandera in figures 20 and 21, featured the same separate "wing" or "wings" from the end/s of the buildings. They were all based on centre access and Whitton added rooms evenly on both sides according to the number of functions to be performed. At the outset of the High Victorian period, he continued to use low pitched roofs such as at Tamworth, Wagga and Hay as in figures 162, 194 and 196. As the period progressed, he increasingly employed high pitched roofs as at Albury, Narrandera, Armidale, Wellington, Dubbo and Glen Innes.

With Whitton's approval of Narrandera in 1881 he had changed his three tier policy to four tiers. The smallest of sheds, as at Uardry in figure 197, was the first tier; "standard roadside stations", as at Byrock in figure 198, was the second tier; second class stations were the third tier & first class buildings as at buildings as at Glen Innes in figure 199, provided the final tier. These four types of structures generally replaced the earlier initial centre access design which Whitton had used since 1858 and combination office/residences, though these two designs were sometimes employed.

The significant architectural feature in the first part of the High Victorian period was the increased complexity in rooftscapes. Plain gabled roofs as had been erected at Bethungra in 1877 in figure 199A now received transverse gables as at Old Junee in 1881 in figure 83. A similar

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(4) For details, see D.R. Keenan, Tramways of Sydney, Sydney, Transit Press, 1979, pp. 5-8.
treatment was made to hipped roofs as in the transition from the uncluttered roofscapes at Binalong in 1883 in figure 200 to that at Harden in 1881 in figure 193. The new second class station buildings had high pitched roofs with end or near end transverse gables and the first class stations, such as those at Albury, Bourke and Glen Innes, had most complex roofscapes. Because in the vast majority of cases the complex roofscapes were of only ornamental application, this feature was a type of indicator of Colonial wide progress, with appropriate amendment according to the degree of importance of the local town served.

Politically, the 1880s was "a decade on inter-colonial rivalry and tariff wars" (5) and the railways became a tool employed by politicians in their contests. Although there is no evidence to support the view, it would seem that station buildings became one of the subjects of railway administration, like freight rates, that were manipulated to the benefit of New South Wales Governments though in a far less vociferous manner. Local politicians wanted to show their interstate rivals and people wanting to send goods across Colonial borders the grandness of the Colony of New South Wales and Whitton responded to this attitude by erecting large and ornate structures in border areas, as at Albury, Hay and Tenterfield in figures 30, 153 and 201. These structures all comprised of seven or more rooms in the main building and were flanked by separate outbuildings in which were located the men's toilet and porters' room. These were at least two rooms larger than nearly all previous structures. The additional accommodation was usually used to provide separate rooms for the station master and booking clerk, for the provision of first and second class ladies' waiting rooms and for left luggage. Further, each room was larger. Apart from the high pitched roof, there was a high degree of embellishments on the roof, such as ridge decorations, cupolas, towers and ventilators.

Government policies in regard to border areas were accordingly symbolised by the large size of buildings, the high pitch of roofs, the degree of exterior detail, the additional facilities provided and the larger size of rooms.

These features were rarely seen on buildings constructed before the High Victorian period. However, whilst having a symbolic role, these structures were in no way excessive as they served large towns which required big station buildings to meet the needs of the large numbers of passengers and others using them.

Station buildings also became a covert political tool in areas outside border regions. There was a high proportion of the population of the Colony in towns. Governments in the period always pursued a policy of implementing any measure, and particularly building public offices at towns, which would display Government awareness of the importance of towns and which would ensure that electors of one town did not think that the Government favoured one centre over another. Court houses, Police offices, etc., were mostly impressive structures. With the necessity of erecting some form of railway station building at non-metropolitan urban centres, Whitton took the opportunity to ensure that the construction of station buildings attested to the Government's nominal interest in the development of towns and which showed its belief that towns of similar size and character deserved station buildings of similar size and standard.

Railway engineers again succeeded in meeting the political requirements of successive governments. They designed impressive structures, the size and ornateness of which had previously been seen only on a few occasions. Buildings at major inland centres showed many of the characteristics of those built in border regions and, similarly, reflected the political environment which prompted their erection. They were large overall, consisted of seven or more rooms, featured detailed roof facades, provided additional facilities and had larger rooms. These characteristics varied in accordance with the size and nature of the town at which the station was located. The buildings, by using these features, purposefully symbolised nominal political faith in regional progress and were indicators of the Government's awareness of the high percentage of the voting population in non-metropolitan urban areas.
Outside non-metropolitan urban centres, the population was sparsely located with only one family or a small number of families working on individual rural properties. In such cases, there was a greater need to provide goods facilities. Passengers accommodation was a secondary matter. For this reason, Governments did not use station buildings in rural areas to reflect Government attitudes. Nevertheless, the designs that were implemented did cater for the functional needs of the communities they served. The first half of the 1880s was a time of pastoral boom, yet stations in rural locations in no way reflected Government support for pastoral industries. The buildings were usually no more than timber or tin sheds measuring 12 feet by 12 feet. Whilst their design did not reflect the support for pastoral activities, their specific location did. The fact that stations were situated where they were was an indicator of the political pressure of property owners. The combined pressure of municipal politics plus the support of urban based interest pressure groups were required to ensure the erection of buildings larger than one room structures at urban centres. In short, the smallest of stations which served only one or two properties were purely functional, unlike those at larger centres which also had symbolic functions.

Politicians indirectly controlled the design of station buildings by ensuring the erection of suitably large and ornate structures in border and other inland areas. However, this did not conflict with the design policies which railway engineers were at the time using. Railway engineers erected structures appropriate to the size and importance of the towns and this agreed with Government policy.

Other than this broad interaction of Government and departmental policies, railway engineers were not openly pressured by the Government to erect certain standard and size structures at specified locations. Only in the broadest sense was station architecture a political tool, yet this was sufficient to meet the needs of their political environment. So far as local politics was concerned, railway engineers were most successful in refuting the demands of local politicians and community groups for participation in the design of railway station buildings.
All station architecture originated in Sydney. There were some instances in which the actual route of railway line was altered for the benefit of local politicians. The construction of two lines heading in a northerly direction from Werris Creek is a testimony to the power of local pressure. The placement of the line through Armidale is another example of pressure group action. However, the erection of a large and ornate building at Armidale in 1884 is not attributable to the pressure of local politicians and groups. Whitton used a very ornate design and Edmund Lonsdale, who became the Parliamentary Member for New England in 1905, constructed the building. All major towns in the New England geographic area received large and ornate structures. It was simply the implementation of an established architectural policy.

Similarly, the large and ornate building at Tenterfield would seem to be not attributable to Henry Parkes, local member at the time and a sometime Premier. Glen Innes had precisely the same structure but it was in a different electorate. It was the size and nature (i.e. in a border area, plus the need to ensure that local towns received similar standard buildings) of towns that were the criteria of large and/or ornate buildings.

The dominance of railway engineers over local pressure groups no doubt pleased Governments in Sydney, for it maintained the hegemony of the capital in official affairs. Station architecture was singularly successful in meeting the needs of its political environment.

As well as meeting political needs, engineers worked in a time of increased standards of living. "Australians were well fed, well clothed and well housed and, once these basic needs had been met, most people had something left for indulgences of one kind or another". The provision of railways was one way in which the people could improve their standard of living by increasing their travel movements.

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There was increased interest in Parliamentary affairs and literary affairs generally.\(^{(8)}\) For the first time, there was interest in station buildings as items of architecture and not simply as functional units.

However, passengers rarely made comments about station buildings. For a start, it was difficult for passengers to view buildings from the confines of a railway carriage. Passengers mostly viewed station buildings in the context of their functional role or their physical environment, such as a passenger who said:

"the site of Nevertire railway station was a most unfortunate selection; a more dreary, uncomfortable looking spot could not possibly have been pitched upon; a treeless, waterless Sahara, sweltering in a semi-tropic heat and choked with clouds of dust".\(^{(9)}\)

Indicative of the interest in rail travel generally was the appearance from 1881 of a series of "Railway Guides" which were official publications setting out the features which a traveller would encounter on journeys on the New South Wales railways. The 1881 edition was rather subdued in its remarks about buildings, only describing Bowning as "small" and West Tamworth as a "brick building".\(^{(10)}\) This highlighted the functional perspective of station buildings.

It was not until the second edition in 1884 that remarks about architecture appeared. It described the Uralla structure as "attractive" and said that the Armidale station "is one of the most attractive and commodious on the Northern line".\(^{(11)}\) It said the building at Dubbo was "imposing".\(^{(12)}\)

On rare occasions, the local press would also carry a description of the structure at the time of the opening of the line. One such instance was the opening of the line from Harden to Young in 1885 at which time the press gave a detailed description of the station building, saying that the


\(^{(9)}\) Quoted by R.M. Brennan, Across the Black Soil Plains, no publisher, 1972, p. 48.


\(^{(12)}\) ibid., p. 80.
"very spacious and elaborate brick structure with iron roof is of a pleasing appearance". (13)

Some evidence suggests that railway stations but not necessarily station buildings became popular with local residents, at least at train arrival or departure time in the years shortly after openings. References exist to the crowds that gathered at both Dubbo and Young stations which required the introduction of a system of platform tickets, referred to in Chapter Six. (14)

The erection of high class station buildings drew not only the attention of the public but also that of the adversaries of Whitton who had always demanded the lowest possible construction costs. Yet neither public nor adversaries documented their feelings about the design of buildings.

Governments in the first half of the 1880s were fortunate to have ready access to near limitless amounts of overseas loan funds. However, the larger number of ornate buildings which Whitton approved in the 1880s than in previous decades does not stem from the availability of overseas funds but merely the number of large towns which were encountered on the rapid extension of the rail network.

As the High Victorian period progressed, the increased awareness of station buildings was oriented to, as it was in the Mid-Victorian period, more the functional role of buildings and not so much to the architecture. This latter aspect seems to have been largely restricted to the press, but even then only on infrequent occasions. The public's interest was hierarchic. For instances, the public protested about the location of stations when engineers first provided them, as in the case of Murrumburrah and Rylstone. (15) Where stations already existed, the public wanted improved facilities, such as the complaints in 1882 about "insufficient public accommodation" at Stanmore. (16)

(13) Burrangong Argus, 28th March, 1885, p. 2.


It was only when public demand for functionally oriented facilities had been met that they sought attainment of their psychological aspirations through requests for completely new and larger structures of a more ornate nature as at Bowral in 1882.\(^{(17)}\)

Although Butlin argues\(^{(18)}\) that the criteria for railway investment had deteriorated to the point where there was no chance of a return on investment, Whitton's station policy in no way contributed to the overall instability. Whitton's only first class stations in the High Victorian period were at Albury, Hay, Mudgee, Bourke, Tamworth, Armidale, Glen Innes and Young. Moreover, Whitton increasingly used temporary structures such as at Werris Creek as shown in figure 202. He also used timber when brick was unavailable in isolated areas. For example, with the opening of the line to Hay from Junee in 1882, Whitton used brick for only three structures out of the total of 15 stations on the 130 mile piece of track.\(^{(19)}\) Whitton never waited for the completion of station structures before he handed over lines to the Railway Commissioner.\(^{(20)}\)

Engineers were more concerned with having other facilities which were vital for train operation ready. Indicative of this was the plea by Walter Coonan, M.L.A., in 1883 to have the building at Girilambone ready before the line was opened.\(^{(21)}\) He said tenders had been called "six months ago" for the water tank but there was no work on the station buildings.\(^{(22)}\) In reply, the Minister for Public Works admitted that tenders had not been called but said that the railway would not be opened "for four months by which time the station buildings will, I hope, be ready".\(^{(23)}\) Whitton must have recognised the disinterest in station buildings to neglect these to such a degree.


\(^{(18)}\) N.G. Butlin, Investment in Australian Economic Development 1861-1900, Canberra, Australian National University, 1972, pp. 415-417.

\(^{(19)}\) These are Old Junee, Narrandera and Hay.

\(^{(20)}\) A significant example of an uncompleted station building on the opening date was Albury. See Border Post, 5th February, 1881. There are many other examples.


\(^{(22)}\) ibid.

\(^{(23)}\) ibid.
Whitton continued to use materials other than timber, where possible, in order to achieve longevity in building life. It was at Dubbo as shown in figure 203 that he approved the use of stone for the only structure outside the five erected in the Mid-Victorian period. Some see the use of stone at Dubbo as an anomaly and point to a high degree of local political interference. Rather than a matter of politics, it would seem that the use of stone at Dubbo stemmed more from the availability of local material and local tradesmen.

If any accusation about excessive investment in station buildings were to be made in the first six years of the period, it would have to be directed at the structures which James Mason and George Cowdery approved as Engineers for Existing Lines.

Cowdery had taken over the position of Engineer for Existing Lines in 1881 following the retirement of James Mason. One task for which Cowdery was responsible was the replacement of station buildings on lines which Whitton had handed over to the Railway Commissioners for public use. It was Cowdery who replaced a number of Whitton's temporary structures with first class stations. Under Cowdery's leadership, the Existing Lines Branch erected replacement structures at Harden, Junee, Spring Hill, Blacktown and Eskbank as in figures 193 and 204 to 207. All of these were second or first class designs. Mason and Cowdery built far more embellished and ornate structures than Whitton.

In response to increased traffic, Cowdery rebuilt station buildings not only in the country but also in the Sydney metropolitan area. In the first half of the 1880s, a number of politicians complained about the inadequate facilities on the Sydney-Homebush line. One such instance occurred in 1882 when Sydney Smith informed the Minister for Public Works about the inadequate facilities available at the Newtown building shown in Figure 208. Smith said that the station was "totally inadequate to the requirements of the locality".

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(24) This is the view of Ron Stowe, Building Certificate Teacher, Sydney Technical College. Oral communication with S. Sharp on 26th September, 1978.


In reply, the Minister for Public Works said that "the railway traffic had expanded in such a marvellous way that we had scarcely sufficient accommodation for it at any of our stations, most of which were, consequently, being enlarged". (27)

The initial phase of the rebuilding of metropolitan stations had started in the early 1870s with the erection of a new structure at Ashfield as in figure 10. The architecture of Ashfield reflected the use of combination station buildings in various parts of the Colony. The second phase, commencing in 1876 at Newtown, followed the transition period between 1868 and 1875. (28) Out of that eight year period came the widespread use of gabled roofs. The contrast of new suburban buildings at Newtown and Burwood (with hipped roofs) against Granville and Liverpool (with gabled roofs), as in figures 208, 209, 210 and 25 displayed the transition to gables on a design which previously had a hipped roof. (29)

Following the erection of the new structure at Liverpool in 1879, the third phase in the rebuilding of Sydney metropolitan stations started in 1884 with Cowdery's design for a first class building at Petersham as in figures 211 and 212. With each of the phases, engineers were erecting structures which reflected the increasing social importance of the suburbs between Sydney and Strathfield. The structure at Summer Hill in figure 212A appears to date from this third phase though the precise date of the structure is unknown.

14.3 THE RECESSION AND DEPRESSION YEARS (1886-1892)

The boom years in the first half of the 1880s came to an abrupt stop in 1886. Over investment in certain areas of the Colonial economy caused vast change in political, economic and social activity, the end result of which was the depression of 1891-93. Butlin said that "by 1885, the New South Wales economy was under some strain.

(27) ibid.

(28) It was the 1876 Newtown structure to which Smith was referring.

(29) The link between these and earlier designs is evident from a comparison of Liverpool and Harden in Figures
Then, the main fields of urban investment contracted, and in the following year, 1886, New South Wales railway investment also declined greatly. Butlin points out that investment largely occurred in the 1880s in three major areas, viz., railway construction, housing and pastoral expansion. He states that investment criteria centred on "short term profit expectations or immediate social needs". It was over-investment in these three sectors which led initially to a cessation of growth in export areas in the late 1880s and ended in the depression of 1891-93.

Farmers in New South Wales were unable to compete with their interstate counterparts for the Sydney market. Manufacturing was stagnant, resulting in large numbers of unemployed workers. Both of these areas suffered as a result of the lack of attention given to them by investors who preferred the more traditional pastoral, housing or communications sectors. Even in the pastoral industry, there were problems. As rural expansion pushed into marginal areas, graziers encountered drought conditions at a time when interest rates were rising and wool prices were falling. The economic recession had substantial implications for railway administration. The amount of capital funds made available to the railways fell by 10% in 1886 and reached its lowest point in the High Victorian period in 1889 when it was only 22% of the 1885 figure. It rose in 1890 and 1891, possibly due to payments for the purchase of nearly 200 units of the P-6 class express passenger locomotive but again fell sharply in 1892 and did not start to rise again until 1898.

Between 1886 and the end of the High Victorian period, the Government opened a total 571 miles of railway.

(31) ibid., p. 415.
(32) Rather than seeing the railways a victim of adverse economic conditions, some, such as Wotherspoon, see the decline from 1886 as intentional policy following the completion of the trunk railway routes. See G. Wotherspoon, "The Determinants of the Pattern and Pace of Railway Development in New South Wales, 1850-1914", Aust. Journal of Politics and History, Vol. 25, No. 1, April, 1979, p. 58.
(33) See table 7.5, chapter 7.
(35) See table 7.5, chapter 7.
Whilst substantial, this represented a reduction of 43% compared to the period 1879-1885. In 1886, the number of passenger journeys increased by 10% but this was only half the rate of increase in the previous year. In 1887, the number of passenger journeys declined by 3% over the previous year - the first time a decline had been registered since 1872.\(^{(36)}\)

Engineers responded to the adverse economic situation by reducing the outlay on station structures. They did this through the much wider use of timber, the emergence of new designs for smaller and, hence, cheaper buildings and the reduction in the size and elimination of awnings over platforms.

Whilst the practice of eliminating awnings had always been adopted for one room waiting sheds, in 1886 it was applied for the first time to larger structures as at Fassifern and Bombo in figures 46 and 47.\(^{(37)}\) A new design had emerged. The structure at Fassifern was small. In length, it measured 30 feet. However, the small size alone was not merely a sudden attempt to achieve economies in the short term as Whitton had five years earlier reduced the length of three room standard roadside stations from 52 to 32 feet. This occurred at Table Top, Ettamogah, Maryvale and Kentucky as in figures 213 to 216. The choice of smaller structures had previously reflected an existing long term policy of refining the size of buildings to smaller locations and it was this policy that in the main had earlier prompted the use of smaller structures. This, however, does not explain the timing of the new design. The design of the Fassifern building shows four characteristics, other than building length, which suggest that the intention was on this occasion to minimise expenditure more than to refine building size to town size. Four points support this view.

Firstly, there was no door to rooms located in the exterior rear wall to permit centre access. Patrons had to enter the station from the ends of the building. Once on

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\(^{(36)}\) Calculated from Appendix 8, Department of Railways, Annual Report to 30th June, 1956, Sydney, Government Printer, 1956, p. 82.

\(^{(37)}\) The structure at National Park, dating from 1885, as in Figure 67, is a transitional example, having a hipped roof at one end.
the platform, they entered an open-fronted general waiting room from which a door led to the ladies' toilet. The absence of the exterior door made the application of weatherboards easier, and hence cheaper. It also enabled the elimination of an awning that would otherwise have been necessary to protect rain entering the doorway. This provided further cost savings. Secondly, engineers eliminated the ladies' waiting room though it is significant to note that entry to the ladies' toilet was protected by the supervision of passengers sitting in the adjacent general waiting room. As engineers provided ladies' waiting rooms in all but one design between 1890 and 1972, the absence of the facility can only be viewed as an economy measure. Likewise, was the absence of heating to the general waiting room area.

Thirdly, the placement of the ladies' toilet next to the waiting area also suggests an economy measure as Whitton had sought and achieved the separation of the ladies' toilet from the ladies' waiting room at Gunning because of the obnoxious smells with which passengers had to contend. Lastly, the men's toilet, as shown at Shellharbour in Figure 217, was clad with the cheapest of all materials - corrugated iron sheeting.

Whilst the design met cost saving objectives, it would seem that the small degree of space available in the booking office and the narrowness of the door leading onto the platform must have been restricting factors in the provision of a parcels service. Despite the functional limitations of the design, it did attempt to show some aesthetics through the symmetry of the structure and the use of shaped boarding over the entrance to the waiting area. In doing so, engineers endeavoured to provide smaller sized communities with a building that was partially attractive even if in a spartan manner. As had been the policy for many years, the design was used in three, two and one room versions. Fassifern was a three room example; shown in Figure 47, Awaba was a two room example shown in Figure 218 and Sunnyside in Figure 219 was a one room example.

The design as at Fassifern gave no protection between the building and the train. Engineers realised that it was possible to provide an awning by reversing the pitch of the skillion roofed structures used at that time.
and extending the rafters. By adopting this method, the wide awning and supporting posts were completely eliminated, making for cheaper construction. Engineers first used this design at Toolijooa in 1889 as in figure 35. Although it was possible to have only a three or four foot awning (because of height limits at the gutter line), rather than the previous normal width of ten or twelve feet, the design proved successful and from that time on it was used widely for structures of the same design but varying lengths. Of all designs on the system, this proved to be the most extensively used, with 24.9% of all known buildings from 1855 to 1980, constructed to this pattern. (38) Although used intermittently up till 1950, its last widespread application was in 1917.

Engineers also carried out experiments with other awning modifications on gable roofed structures. They achieved economies by replacing the wide awning supported by posts with a narrow three feet awning, supported by cast iron brackets as at Pennant Hills up platform, Otford up platform and Kingswood up platform shown in Figures 220 and 221. There were problems with this design, as unlike the extended rafters used on skillion structures, it was not possible to provide an awning any wider than three feet, which was totally inadequate for the climatic conditions. The only solution was to fit larger brackets to support the weight of slightly wider awnings. In 1890, William Foxlee designed a building at Raglan, shown in Figures 37 and 37A, which had much larger brackets to support a six foot wide awning on both sides. This building and a similar structure at Liverpool (No. 2/3 platforms), shown in Figure 222, provided the basis of an entirely new and different design which came into use in 1892 and was used extensively until 1930.

At the closure of the High Victorian period, engineers had sufficient knowledge to use brackets which would allow the application of a ten foot awning supported by fabricated metal brackets rather than posts. This was used at Corowa, Cobar, Temora and Waverton in 1892 as in Figures 223, 224, 225 and 125. (39) The last use of awnings supported by posts was at Yass Town, also in 1892 as in Figure 226.

(38) See Appendix 12, Chapter 3.
(39) At Corowa, Cobar, Temora, Forbes, Parkes, Lismore and Byron Bay, the brackets were used on standard roadside station designs and formed a transition from that design to Deane's 1892 initial island/side platform design at Kiama. At Kiama, and to a lesser degree at Waverton, the brackets were employed on a new design. Figures 225A of Forbes shows a transition building.
The experimentation with the elimination of awnings and changes of type of support for awnings had started in 1836 as an attempt to achieve economies but appears to have ended as part of a general architectural trend outside the railway sector which tended towards the elimination of metal posts from shop and other awnings and towards the use of pre-fabricated steel brackets.\(^{40}\)

Politics formed no part of the pressure on engineers to change designs. The year, 1886, marked the "turning point" in the political history of New South Wales.\(^ {41}\) It was the start of the end of faction politics and the concurrent birth of party politics. However, it was not this change in the nature of politics that stimulated the emergence of new designs. It was not even Whitton's perennial enemies in Parliament who had prompted the establishment of a Royal Commission in 1884 into the stability of selected iron bridges.\(^ {42}\) In giving evidence to the Commission, Whitton indicated that the Legislative Assembly had required him to use timber instead of imported iron in order to stimulate local industry.\(^ {43}\) The Commission ended by suggesting that the appropriate guide to select materials was to calculate the differential of materials as regards both construction and maintenance.\(^ {44}\)

Had the Royal Commission investigated station structures, it would have found that this was the very policy which Whitton was pursuing and had always pursued.

In 1885 and 1886 no single faction in Parliament had sufficient strength to govern alone.\(^ {45}\) This increased the vulnerability of the public service, and particularly the railways, to political interference. This in turn prompted considerable political attention to the extent of political interference. An attempt in 1886 to introduce a Bill to eliminate political interference in the railways was thwarted because some Parliamentarians considered it a move by the Secretary for Public Works to gain a position as Chief Commissioner.\(^ {46}\)

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\(^{44}\) ibid.


Henry Parkes took up the subject of political interference and in December appointed a Board of Enquiry into the Department of Public Works. (47) There was considerable evidence given to indicate the absence of communication between Cowdery's Existing Lines Branch and Whitton's Railway Construction Branch. Leggart, the Architect in the former, indicated that the Branch had not used standard drawings and was not aware that the Construction Branch was using them. (48) Moreover, he argued that "alterations are always required to Construction Branch station buildings". (49) The Commissioner, Charles Goodchap, who had always been hostile to Whitton, said that Whitton had erected station buildings in the wrong locations where they had not been required and that he should have used more temporary structures to determine likely traffic flows. (50) Goodchap gave no specific examples to support his statements and in the end said that "the buildings now being put up are not, I think, of too permanent or extensive a character". (51)

When the Board of Enquiry released its report in 1887, it recommended "amalgamation of the separate and, we regard to say, conflicting and antagonistic branches of the Railway Department, namely construction and maintenance". (52) It also suggested that the time had come "for the introduction of a lighter and less expensive class of railways in construction and equipment, to afford means of communication and act as feeders to the main lines". (53) The Board of Enquiry condemned the large number of "additions and improvements to stations and buildings". (54)

Following publication of the Board's report, Commissioner Goodchap wrote a minute again condemning "incurred expenditure on station buildings and appliances which were not required". (55) Goodchap said: "I can point to the useless buildings on the Mudgee line, and at other

(47) Borchardt, Checklist of Royal Commissions, p. 133.
(49) ibid., p. 179.
(50) ibid., p. 214.
(51) ibid.
(52) ibid., p. 134.
(53) ibid., p. 29.
(54) ibid., p. 30.
(55) ibid., pp. 51 and 52.
places. I do not desire to overstate this expenditure - it is represented by a few thousands - but I am content to acknowledge that these mistakes cannot be repeated. They have not been possible for a considerable time past, because three years ago the Minister of the day gave directions that no plans of station buildings, etc. were to be adopted without them having first been submitted to the Commissioner for Railways and received his approval under the report of the traffic officers". (56)

From Goodchap's evidence to the Enquiry and his Minute above, it would seem that he was making two points. Firstly, some buildings were in the wrong locations and, secondly, some structures were of the wrong size given the amount of traffic offering at those stations. Other than the reference to the Mudgee line, nothing is known of the particular buildings he had in mind.

As a consequence of the report, Parkes introduced legislation that took effect from October, 1888, which replaced the former single Commissioner with three Commissioners who were "freed from political control". (57) At the same time, he legislated for the Railway Commissioners to approve "the position, character, and suitableness of all stations, station-yards, etc.". (58) In 1892, the Chief Commissioner reported "from the day the Commissioners took office there has been complete harmony between the Construction Branch and the Commissioners with regard to works to be undertaken, and all plans are approved by the Commissioners before the works are commenced". (59) Legislation

At the same time as Parkes introduced/to appoint three independent Railway Commissioners, he amended the Public Works Act to establish a Standing Committee on Public Works to which Departments had to submit proposed works in excess of £20,000. This was another move to eradicate political interference in public administration. (60)

(56) ibid., p. 52.
(57) Dickey, Politics in New South Wales 1856-1900, p. 98.
(58) Minute signed by E.M.G. Eddy et al dated 4th February, 1892, Parliamentary and Other Papers, State Rail Authority Archives, p. 2.
(59) ibid.
Although the appointment of the Board of Enquiry occurred about the time of the widespread use of the awningless gable type, the two events are not connected. The initial examples of the awningless gable type predate the appointment of the Board by a full year. Similarly, Whitton's use of timber for all but two structures (viz. West Ryde and Hornsby) for the line between Strathfield and Broadmeadow constructed in 1886 and 1887 and two structures (viz. Helensburgh and Wollongong) for the line between Sutherland and Bombo in 1886-1888 was not the result of the 1887 Board of Enquiry report.

As the planning of many of the timber structures on the Newcastle and Bombo lines and other lines predates the Enquiry, another explanation is required. As it happened, Whitton had been using timber in accordance with a Cabinet instruction dating from August, 1884, though he made no reference to this in evidence to the 1886/87 Enquiry.

On the 11th August, 1884, the Colonial Cabinet resolved "(i) that wooden or iron buildings of a comparatively inexpensive character should be erected at the various railways, in lieu of the expensive buildings which have been hitherto erected; (ii) that a lighter system of railway construction than that hitherto adopted is indispensable to carry out railway extension".

The impact of this decision is obvious. From the date of the Cabinet decision to 1890, Whitton approved only four first class buildings (at Young, Bourke, Queanbeyan and Tenterfield) and no second class buildings. On the other hand, Cowdery approved three first class stations (at Cootamundra, Petersham, Summer Hill) and nine second class stations (Stanmore, Auburn, Morpeth, St. Marys, Penrith, Riverstone, Millthorpe, Spring Hill, Bowral).

Considering that in two out of four of Whitton's cases the stations were located in geographically strategic locations close to Colonial borders, he dutifully implemented

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(61) Cabinet decision dated 11th August, 1884, Railway Reports and Papers 1884, State Rail Authority Archives, p. 342.

Cabinet's decision. In addition, he of course constructed the Strathfield-Broadmeadow and Sutherland-Bombo lines as noted previously almost entirely of timber. Whitton employed timber to such a degree after 1884 that, of the 90 stations which the Government opened between 1884 and the appointment of the Board of Enquiry into the Department of Public Works in December, 1886, only 23, or 25%, were in brick. (63) During the same time, Cowdery erected all structures in brick though he probably and rightly considered that the Cabinet decision did not include replacement structures.

Because it would not be clear to a person not working in the Railway or Public Works Departments who was responsible for erection of buildings, it may have been the erection of lavish replacement structures - Cowdrey's area of responsibility - that prompted the Government to establish the 1886 Board of Enquiry. At the least, it would seem that there was little for which Whitton could be found wanting.

Not only did Whitton use timber but he continued to employ temporary structures. Although there is little evidence, it is known that he used temporary buildings extensively on the branch line from Harden to Cowra. (64)

Following the Board of Enquiry, Whitton and his successor, Henry Deane, used brick for only ten of the 131 stations that the Government opened between that time and the end of the High Victorian period in 1892. The Existing Lines Branch did not start using timber for replacement structures until after Cowdery's retirement and even when it did at Raglan in 1890, shown in Figure 37, the approval was granted by William Foxlee under delegation from James Angus. (65) From that time, a few replacement structures were erected in brick as at Hamilton in 1890 as in Figure 226A but from 1891 to 1900 replacement buildings were in timber.

(63) Calculated from Appendix 9, Chapter 3.
(64) Plan of Young dated 6th May, 1882, unsigned showing gabled roof shed 13 feet by 11 feet which had previously been used at Capertee and for Cowra. See also The Cowra Free Press, 5th November, 1886, p.2, referring to "portable structures" of a "temporary nature".
(65) See Plan of Raglan dated 26th July, 1890, signed by W. Foxlee, State Rail Authority Archives. The building on Liverpool 2/3 platform in Figure 222 is an example which dates from the same period and is of similar design.
In the light of the practices which Whitton was adopting, the possible exclusion of renewals from the 1884 decision and the terms of reference of the 1886 Enquiry, it would appear that it was not so much the use of materials but the actual designs which the Board of Enquiry considered inappropriate. The evidence presented to the board by Goodchap and its findings suggest that the Commissioner was critical that buildings were not of the correct size or layout for particular locations. This is suggested by the accusations that considerable alterations and additions were often necessary and the suggestion that greater use of temporary structures should have been made to allow for assessment of traffic requirements.

This was superficial criticism in the absence of specific details. It had been political pressure which had forced Whitton to standardise the design of structures and it was only his use of standard floor plans which enabled him to prevent the tempo of station building construction not falling further behind the speed of opening new lines than it did. Even with his policy of standardised floor plans, the Government often opened lines with the station buildings incomplete.

In his attempt to placate politicians' dictates about erecting cheap buildings, as shown in Whitton's evidence to the 1869 Parliamentary Select Committee on rail extension, Whitton had in the second half of the 1880s found that he had additional enemies in the rail administration, including Commissioner Goodchap, and Whitton had always been "antagonistic" it would seem that Whitton had been aware of this source of criticism since Goodchap's appointment in 1878.\(^{66}\)

Whitton was therefore the subject of criticism no matter what he did. He had used standard floor plans and designs to achieve economies in the 1870s but this very policy was regarded as being too rigid in the 1880s. Despite the criticism in the 1886 Board of Enquiry report, Whitton made no change to his designs.

At the same time that Whitton was not influenced by the Board of Enquiry, he was not moved by any local political pressure. Two instances give evidence. The first example involves the planning

\(^{66}\) Smith, John Whitton, p. 53.
for the Wollongong structure in 1887. Even in the absence of official documentation leading to the opening of the station, there is no evidence to suggest the presence of local political pressure. The Wollongong building was the only brick structure between Helensburgh and Kiama and, for this reason, is an interesting study. Despite the Government allowing free rides on the opening day, there was no Government representative at the opening ceremony. The local resident engineer represented official interests. More importantly, the Local Member of Parliament who attended the opening was not a Member at the time when engineers designed the building.\(^{(67)}\)

The second example relates to the opening of Queanbeyan, also in 1887. This was one of four first class examples which Whitton approved between 1884 and 1889. The Premier, Henry Parkes, was very keen to win the seat of Queanbeyan in 1887.\(^{(68)}\) Parkes came by rail to Queanbeyan in February, 1887, seven months before the official opening of the line. It was his intention to win the seat from the sitting member. One way open to Parkes to impress the local constituents would have been to arrange for a magnificent station building to be erected. However, the engineering staff of the railways had designed a large, very ornate, seven room structure in February, 1886, one year before Parkes' visit. The contract for the construction was signed in July, 1886. Parkes himself could not have wished for a more beautiful, yet functional, building.

Two Cabinet Ministers attended the opening at Queanbeyan and the local newspaper said "the architecture details are very perfect and the buildings generally have a very tasteful appearance, as indeed they should having cost the country some £10,000."\(^{(69)}\) Keeping in mind that the member for Queanbeyan had been in Parliament for only four months when the design of the building had been complete, it is clear that neither the sitting local member nor the


\(^{(69)}\) The Queanbeyan Age, 10th September, 1887, p. 2.
Government was involved in the design. The railway engineering staff had designed the structure commensurate with the size and nature of the town and not of any politician. (70)

The opening of the Queanbeyan structure is one of the few instances in the High Victorian period in which the Press referred to station buildings. It is significant that the local newspaper made the point that "the arrangements are as perfect as are to be found at any country station in the Colony". (71) This interest in ensuring that the local building was at least as good as those being erected in other locations at the same time is one which frequently emerges in the history of New South Wales railway architecture.

The comparative approach was also found in official documents. In 1886, the Railway Commissioner published the third edition of the "Guide of New South Wales". (72) In it, there were a few scattered references. The Junee refreshment room was described as "the largest and most complete ... on the railways", (73) the Glen Innes building was referred to as "a very handsome building commanding a very pretty view of the town" (74) whilst Armidale was "one of the most attractive and commodious on the Northern line". (75) Where the building was not particularly attractive, no reference was usually made to the structure. One exception was the building at Byrock in regard to which the Guide stated that "judging by appearances the station does not seem destined to have a long life as its buildings have been designed apparently for merely temporary purposes". (76) Other than the foregoing, there were no references to the architecture of buildings in the 1886 edition of the "Guide".

(70) Consider the statistics of Queanbeyan as indicated in Appendix one to chapter seven.
(71) The Queanbeyan Age, 10th September, 1887, p. 2.
(73) ibid., p. 96.
(74) ibid., p. 118.
(75) ibid., p. 116.
(76) ibid., p. 79. The buildings were in fact, not temporary, being timber examples of "standard roadside stations", still extant in 1980.
One theme which provincial newspapers continued to raise was the poor location of stations. Even before the Government opened the line to Michelago in December, 1887, the local press was noting that the "railway is some considerable distance from the township". The few references in newspapers and elsewhere demonstrates a general disinterest in railway stations and particularly station buildings. It was only on very rare occasions that writers referred to stations in literature. One exception was the publication in 1887 of a short story by Suttor in which there was a reference to Wimbledon railway station.

Suttor used the station as a geographical reference point by stating the pastoral farm was "near the now little railway station of Wimbledon". There was no reference to the building at Wimbledon though it is significant that the station was perceived by Suttor as a modal interchange point which served the transport needs of local residents.

The needs of station users in the country and the Sydney metropolitan area were different in the second half of the 1880s. In the country, there was a need to protect waiting passengers from unpleasant weather conditions. This was particularly important for rural travellers who often had a long wait for delayed trains. Henry Lawson made this point in one of his short stories in which he refers to a farewell at Bourke railway station. He wrote:

"We were all up at the station to see him off. It was rather a long wait".

The need for enclosed waiting rooms in the Sydney metropolitan area did not exist to the same extent due to the more frequent arrival of trains and the larger numbers of people using the service. Railway engineers responded to this difference by providing fully enclosed waiting rooms as at Bourke and the vast majority of other stations. They had experimented with open fronted waiting rooms at Bethungra in 1877 and at Breeza in 1878 as in

(77) The Queanbeyan Age, 10th September, 1887, p. 2.
(79) ibid.
Figures 199A, 227 and 112. However, this had apparently proved unpopular as this approach was not used in the second half of the 1880s in rural areas. Engineers realised that the same conditions did not exist in the Sydney area and used the open fronted waiting areas at Auburn and Stanmore in 1886 as in Figures 19 and 18 as well as at other locations. These station buildings represented another phase in the re-development of stations between Sydney and Homebush.

One of the stations that Cowdery designed was Petersham in 1884 shown in Figures 211 and 212. It will be noted that, to reach the parcels office, people had to enter the platform by the centre entrance and then walk along to the office. This must have been tiresome for users when trains were arriving at the platform. The way to prevent the clash of movements was to separate entry to the platform for passengers and entry to the parcels office by residents. This had been first done at Bathurst in 1875 and was used at all rural locations such as at Narrandera in 1881 shown in Figure 21. The arrangement at Petersham was a blunder but it was not repeated in 1886 when an unknown engineer approved the design for Stanmore, the adjoining station, at which entry to the parcels office was similar to that at Narrandera. (81)

Even at Stanmore, the engineer made a design mistake. Whilst he was successful in providing separate public access to the parcels office, he located the door to the ticket office from a side wall of the general waiting room. This was the same arrangement that had been carried out at Sydenham in 1883 shown in Figure 27. The position of the door made it awkward for the officer on duty to make a quick exit to flag away trains though it enabled him to move quickly to the station exit to collect tickets. At a later date, engineers added a door leading directly onto the platform. In addition, the presence of a considerable number of steps must have made it difficult to convey heavy parcels to and from the parcels office, not to mention the difficulties to aged persons.

(81) Plan of Stanmore dated 17th January, 1886, signed by George Stephens, contractor, State Rail Authority Archives.
Throughout the second half of the 1880s, the boom in the housing sector placed continuing pressure on the Government and the Railway Commissioners to update existing facilities and to provide a system of metropolitan railways. In 1886, "plans and estimates were ... put in hand by the then existing administration" to duplicate the double track between Sydney and Homebush. When the three man Commission took office in 1888, they did not proceed with the scheme. The official reason given for the cessation of work was the high cost of land resumptions along the line.

In 1891, the Engineer for Existing Lines approved the plans for new structures along the Sydney-Homebush line as that at Lewisham in Figures 38 and 39. This was the first major use of island platforms and the first time one design was applied to all new buildings along an interval of line.

The 1891 structures replaced a number of buildings of very mixed architecture. The Sydney-Homebush line was the first length of track in the Colony to have its original buildings replaced or to have additional stations opened on an existing line. Because Whitton concentrated on building new country lines for the first 20 years, he gave no great attention to renewals work on the line until responsibility for existing lines was transferred from his position to a newly created position in 1876 of Engineer for Existing Lines. Thus, the buildings that Angus replaced were of varied architecture such as Croydon in figure 228 and Petersham in figure 229.

(82) Even in 1883 Twopenny remarked that "new suburbs are also springing up along the railway lines". R. Twopenny, Townlife in Australia, 1883, reprinted Ringwood, Penguin, 1973, p. 25. For details on the housing boom, see S. Glynn, Urbanisation in Australian History 1788-1900, Canberra, Australian National University Press, 1969, p. 27.

(83) A Return to an Order by the Legislative Assembly dated 14th December, 1891, Parliamentary and Other Papers 1888-1892, State Rail Authority Archives, p. 2.

(84) ibid.

(85) The use of an island platform at Petersham as in Figure 211 was the first example of an island platform, thought to have been erected about 1886. Raglan was the next major example in 1890.
The objective of the 1891 station plans was to minimise the width of land resumptions and this was achieved by the use of island and side platforms and the concurrent use of overhead or underground booking offices. There appears to be some doubt that the real intention was to save money. The total cost of the 1891 proposal was £431,580–£73,585 above the 1886 scheme. In addition, had the Commissioners wished to save money, they could have used two island platforms instead of one island and two side platforms. This would have saved the cost of one entire platform and structure.

The Parliamentary Opposition was quick to criticise the Government's 1891 proposal, but for a reason different to the track layout. In September, 1891, the Colonial Treasurer was asked whether the Railway Commissioners "caused fresh plans of wooden buildings and awnings to be prepared". He was also asked whether contractors had "received instructions to erect the buildings and awnings of wood and has he approved of the substitution of wood for brick and iron in these buildings".

In reply, the Colonial Treasurer said: "I am informed it is a fact that the original tenders that were accepted for these buildings have been modified. It was found that little or no progress was being made with the brick structure, owing to the difficulty in getting bricks for face work, and in order to expedite the construction the tenders were amended so as to provide for the booking offices only of brick, the remainder of the buildings having brick foundations and timber sides. The awnings and roofs will be as originally specified. The alteration greatly expedites the completion of the work, and the cost is reduced. It is considered that in appearance the altered buildings will be quite equal to those originally designed and there will be ample accommodation".

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(86) Return to an Order, p. 3.
(88) ibid.
(89) ibid.
The Parliament/Opposition did not refer to what appeared to be rather specious cost saving arguments related to land resumption figures. It was endeavouring to uncover possible Government bungling in the tender arrangements.

The use of timber, according to Davies, was adopted because of its lower cost compared to brick. He says that "in the tenders called for these were prices for the alternative construction of brick and timber". Davies cites no evidence for this. The evidence that does exist indicates that the Government called initial tenders for brick construction and re-tendered or modified the tenders for timber construction. On balance, it would appear that the use of timber was partially an economy measure and partially, as stated by the Colonial Treasurer, the difficulty in procuring suitable face bricks. The procurement of suitable bricks had been a problem at other locations in the past decade as at Armidale and Hay and considering the large number of bricks that would have been required for the eleven stations on the Sydney-Homebush line, there would seem to be some legitimacy in this argument.

It is significant that the original 1886 brick proposal, which was not changed with the use of timber in 1891, employed cantilevered awnings. This was done as a cost measure. It has already been noted that from 1886 there had been considerable experimentation with awnings in order to achieve economies. The use of cantilevered awnings in 1891 was another attempt to obtain cost savings. This was reached two ways: firstly, it obviated the need for awning posts and associated brackets and, secondly, it did not require the erection of any form of scaffolding during construction nor preparation of foundations.

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(91) ibid.


(93) For Armidale, see letter dated 22nd April, 1981, from New England Historical Resources Centre to S. Sharp and for Hay see letter dated 12th March, 1981, from N. Pollard to S. Sharp. The 11 stations on the route would have used a large number of bricks. At Werris Creek alone, the contractor used 200,000 bricks. See Tamworth Observer, 10th May, 1884, p. 2.

The cantilevered design is frequently attributed to Chief Commissioner Eddy. Evidence has already been cited that casts considerable doubt on Eddy's role. (95) Audley summarises the position when he says:

"...Eddy is sometimes given credit for things that he does not deserve, and I think that this would be very true in regard to standardization." (96)

James Angus was the Engineer-in-Chief for Existing Lines at the time of the approval of the structure and his name appears on two of the plans. (97) Audley correctly points out that Angus's knowledge was largely restricted to trackwork and that he knew little of stations. (98) However, he occupied the senior engineering position in regard to renewals and was thus responsible for the design in a nominal sense. Accordingly, the structures are referred to in this thesis in the knowledge that Angus had to approve of them even if it were in a token capacity.

A major design characteristic in the Angus design was the replacement of the transverse access based floor plan with one based on a lineal pattern. Another major design feature was the placement of booking office and parcel facilities off the platform. In the case of Redfern and Newtown shown in figures 136 and 230, these were overhead. On the other platforms, such as at Summer Hill in figure 231, it was below platform. However, this feature was not present at Katoomba, as in figure 232, where the booking office was an integral feature of the on-platform building.

Angus used a ten foot yard to separate the men's toilets from the remainder of the rooms. This was partially intended to mitigate unpleasant odours from exposed urinals and also provided access for staff to remove toilet pans from the ladies' toilet without entering any room.

The split of booking and parcels facilities from other facilities meant that additional staff were required. Whereas in previous designs booking office staff who worked

(95) See section 2.5.14 in Chapter 2 and section 8.4.4 in Chapter 8 for detailed comments.


(97) These are Summer Hill and Katoomba.

on platforms could despatch trains and supervise users, this was now not possible. In addition, the two-level arrangement made it difficult to handle heavy and/or large parcels from trains to parcels offices as well as difficult for elderly and handicapped persons who had to use the steps to reach the platform. Thus, the savings that had been achieved in reduced resumption costs and timber construction were balanced by poor operational features.

Apart from scattered references in the press and the Railway Guides, there continued to be a considerable degree of ignorance about station architecture. In 1879, the Victorian Parliamentarian, Angus MacKay had incorrectly referred to Wallerawang station as "Pipers Flat". (99) Even the official Railway Guide made a similar mistake when it referred to Whitton as "Wilton". (100) In the 1890s, the position was no different. Nat Gould wrote of the 1891 structures in 1896:

"The suburban traffic has been completely changed by the laying down of an additional two lines of rails, making four in all. Stations have been enlarged and improved". (101)

Gould was wrong on two counts. Many of the previous stations, particularly Newtown, Petersham and Summer Hill, were larger than the 1891 replacement buildings. Secondly, the need to increase staff and the difficulties of access from the two levels deny improvement.

The difficulties associated with the use of steps leading to platforms were not sufficient to restrict the application of island platforms. There was little alternative to steps if the railways administration did not want people crossing railway tracks to reach the platform. In 1892, Deane approved the use of a new design at Kiama as in Figures 40 and 41. (102) It combined some of the features of

(102) Plan dated 3rd September, 1892, signed H. Deane, State Rail Authority Archives.
Angus's 1981 design, including the use of an island platform and the unification of all functions in one building. Deane modified the design by placing the booking and parcels office on the platform, being integrated into the one structure. He also chose to use large fabricated brackets instead of cantilevered beams to support the awning and erected the entire structure in brick. Of interest, it was the first structure to have a curved exterior wall in line with the contour of the platform edge. It was also the first design to be used on both island and side platforms. (103)

The use of the large, fabricated metal brackets marked a turning support in architecture. It heralded the elimination of posts to support awnings over platforms. From 1892 onwards, posts were no longer employed. The use of the large brackets seems attributable to Cowdery who used them, possibly for the first time, at Orange for extensions to the existing awning in 1889. (104) The other use of this type of awning support in the second half of the 1880s was at Petersham on No. 2/3 platform. (105) In the same month as Deane approved the use of the brackets at Kiama, he also used them at Waverton, as in figure 62.

The Kiama and Waverton structures marked another turning point. They heralded the end of the use of hip roofed designs. From 1892 to 1965, engineers used mostly two roof patterns - gable or skillion. Whilst the use of awning brackets seems to be an aspect which was inherited from architectural trends generally in the non-railway sector, the use of gabled roofs was an attempt to achieve economies through the elimination of some timberwork.

Although the Kiama structure features uninspiring coloured bricks, as in figure 233, it possessed extensive moulding around doors and windows and had the roofscape punctuated by a number of ventilators. Those over the

(103) The side platform buildings which Angus used in 1891 were not replicates in all facets (e.g. the floor plans differed).

(104) Plan of Orange dated 23rd July, 1889, signed by G. Cowdery, State Rail Authority Archives.

(105) As indicated earlier, the plan for this work is unsigned and undated.
Toilets were an improvement on Angus's 1891 on which there was no roof ventilation over the ladies' toilet. It was the first time that a station building had received the official designation of "parcels and ticket office" in which provision was made for entry by the public.\(^{106}\) At Waverton, Deane's design, as in figure 62, was a most peculiar affair. It was one of the very few to have a gentleman's waiting room (on the up platform) and, even more interesting, possessed a general waiting room in the overhead booking office. This was the only structure to possess this feature.

It would appear that Deane was an eclectic, taking the best features of other people's designs, in this case the cast brackets of Cowdery's work at Orange and Angus's off-platform booking facilities. To these, he made his own "improvements".

It is difficult to believe that the same man approved both the Waverton and Kiama complexes. The former comprised of three structures with facilities scattered everywhere. On what basis did Deane approve a gentlemen's waiting room on one platform but not on the other and above both placed a structure with a general waiting room but excluding a parcels office? There was no on platform accommodation for staff. From an operational viewpoint, it was a disaster.

The Kiama structure was the opposite. It had good access to all rooms through the provision of doors on each side of the building. It was compact and minimised the number of staff that was necessary to man the station. Engineers continued to use the design as at Kiama consistently until 1930. Whilst the design of the Kiama structure is seen in its antecedents, the puzzling aspect is the use of brick. It is possible that Deane thought brick was necessary in order to provide strong corbels on which the awning brackets rested. On the other hand, he may have decided to use brick to show the new Railway Commissioners what he could do, keeping in mind that Deane had only recently been appointed Engineer-in-Chief following

\(^{106}\) Previously, these facilities were either undertaken in separate rooms or, if carried out in the one room, no reference was made to the parcels service. In these latter instances, no provision was made for public entry to the room.
Whitton's retirement. Alternatively, brick may have been available at Kiama and it was cheaper for him to use the local product than import timber for elsewhere. After Deane's approval of Kiama in 1892, railway engineers used brick on only seven instances until 1965 for initial construction of station buildings. (107)

Deane introduced a new design at Kiama for the extension from Bombo to Bomaderry. Kiama was the only location at which he used it. Despite the newness of the design, there was no reference to the architecture of the building in the local press at the opening date. (108) This is not surprising as it was typical for references to the building to be excluded than included.

For the other intermediate stations and for the terminus, he introduced another design which, like the one at Kiama, had a great impact on subsequent designs. In 1889, an unknown engineer approved a plan for a skillion roofed type at Toolijooa as in figure 35. As had been the case with Angus's design the previous year, Deane used the skillion roofed design for every station between Kiama and Bomaderry as in figure 119. Though longer, they were of the same design.

There was little difference between the earlier skillion roofed design except for the direction of the single pitched roof. Up to 1888, the pitch was consistently to the rear of the structure as at Vales in figure 234 and this was last used at Lindfield in 1888 as in figure 33. At Toolijooa, the pitch now sloped towards the platform awning, with the rafters extended to form an integrated awning.

The choice of the skillion roof was a cost saving measure. In 1855, when the Sydney Railway Company was forced to adverse economic conditions to utilise the cheapest possible design, it elected to use the reverse skillion roofed design. Similar economic conditions forced Deane to use the skillion roof, the only difference

(107) These were Woronora Cemetery, Bankstown, Toronto, Regents Park to Cabramatta Line, Bankstown to Regents Park line, East Hills line and Cronulla line.
(108) See Kiama Independent, 3rd June, 1893, p. 2.
being that in the second half of the 1880s, the great interest in awnings prompted the reversal of the pitch and extension of the roof rafters.

As it existed, the structure at Toolijooa was the most cost effective structure to have been constructed in the 125 year period. The low cost was partially achieved because it was "the simplest type of roof".\(^{(109)}\) Because skillion roofs are "only suitable for small spans",\(^{(110)}\) the structure was limited in width. Although Kelsey and Studd indicate that the skillion roof is limited to only 2.4 and 3 metres respectively,\(^{(111)}\) railway engineers did achieve further design economies by increasing the width of skillion roofed structures by up to .5 of a metre and, at the same time, by providing a four foot awning.

In the Late Victorian period, engineers approved the same design as at Toolijooa for the other stations between Kiama and Bomadery though at some of these the structures were longer, containing more rooms.

### 14.4 THE POSITION IN 1892

Between 1886 and 1892, engineers had introduced five new designs (non-standard bracketed design, awningless gable design, Angus's 1891 initial island platform design, Deane's 1892 initial island/side platform design and the skillion roofed design at Toolijooa). Three of these were never used after 1892 (the non-standard bracketed design, the awningless gable design and Angus's 1891 design) but the remaining two were used very widely for the next four decades.

Also during the same period, engineers stopped using four designs some of which had been employed for the past 40 years. Engineers used the combination residence/office design, first and second class designs and the standard roadside station design up to 1892, but not afterwards.

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The year, 1892, was a watershed not only from the point of view of designs but also of materials utilisation. It represented the end of widespread use of brick - a policy which Whitton had implemented in 1858 and which he vigorously implemented until the Cabinet decision in 1884 to use timber, though after that decision, Whitton did continue to use brick on a few occasions. Cowdery had interpreted the Cabinet decision as not applying to the Existing Lines Branch and had continued to use brick for all renewals. However, by 1892, even the Existing Lines Branch was using timber.

From 1892 and for the next few years, railway engineers used only two designs, namely examples which followed the architecture of the structures at Kiama and Toolijooa.

Despite the political pressures which had been placed on Whitton by the 1884 Royal Commission and the 1886 Board of Enquiry, it would seem that he made no change to his station architecture policy. Rather, design changes appear to have been responses to changes in the economy. Even the 1884 Cabinet decision to use timber indicates economy as the major benefit.

However, the link to economic aspects of the environment is not reflected in any relationship with the level of capital funding to the railways. For example, the number of first class structures that were approved in the various years does not seem to have any relationship to aggregate capital funding. It is difficult to see that the designs of Kiama and for Toolijooa were approved for use on the one line as the two structures are architectural opposites. Even the difference of three years in their approval dates gives no explanation when considered in the context of the level of capital funds for 1889 and 1892.

The economic aspects of the environment which stimulated architectural change are evident not in any statistics of the period, but in the prose of politicians. It was they as well as railway commissioners who considered arbitrarily that, if cuts in capital funds had to be made, then the design of station buildings was one area that cutbacks could be made without jeopardising the level of safety in train operations. In the absence of official figures of
investment in the various sectors (e.g. locomotives, stations and signalling) it is not possible to determine whether railway commissioners disbursed funds evenly throughout all sectors or concentrated it in one or two sectors to the neglect of others. The large number of locomotives acquired during the period and the accusations that Eddy gave favoured treatment to select locomotive producers suggest that he may have made an arbitrary decision to divert as much funds as possible away from station construction and into other areas of operation. (112)

(112) See "Correspondence respecting the changes made by Schey, M.L.A., against the Commissioner for Railways", Parliamentary and Other Papers 1888-1892, State Rail Authority Archives, pp. 1-4.
(i) Books


Butlin, N.G., Investment in Australian Economic Development 1861-1900, Canberra, Australian National University, 1972.


McKay, A., Visit to Sydney and the Cudgegong Diamond Mines, Melbourne, George Robertson, 1870.


(ii) Journals


(iii) Official


New South Wales, Cabinet Decision dated 11th August, 1884, State Rail Authority Archives.


(iv) Annual Reports

New South Wales Department of Railways, Sydney, Government Printer, various dates.

(v) Theses


(vi) Newspapers

Border Post, 5th February, 1881.

Burrangong Argus, 28th March, 1885.

Cowra Free Press, 5th November, 1886.

Kiama Independent, 3rd June, 1893.

Queanbeyan Age, 10th September, 1887.

Sydney Morning Herald, various dates.

Tamworth Observer, 10th May, 1884.
FIGURE 209 - BURWOOD

FIGURE 210 - GRANVILLE
FIGURE 215 - MARYVALE

FIGURE 216 - KENTUCKY
FIGURE 217 - SHELLHARBOUR
CORRUGATED IRON TOILET AT FAR
LEFT - OUT OF SHED AT FAR RIGHT
AWNINGLESS GABLE ROOFED
BUILDING IN CENTRE

FIGURE 218 - AWABA
CHAPTER FIFTEEN

LATE VICTORIAN 1893–1900
15. LATE VICTORIAN PERIOD  
(1893-1900)

15.1 DEVELOPMENTS IN THE 1890s

The depression which started in 1891 reached a trough in January, 1893, when most banks suspended payments and some failed. (1) Recovery began in the second half of 1893 but the economy experienced "considerable stagnation" until mid 1895. From then, revival "became more widespread and speeded up". (2) Whilst the pastoral industries were hit hardest by the combination of low export prices and declining yields, the drought did not adversely affect wheat areas in the Colony. On the contrary, the wheat industry accelerated both in acreage and quality and between 1896 and 1915 New South Wales became the nation's primary wheatgrowing Colony. (3)

Until the mid 1880s, "Government land policy had not really helped the small farmers". (4) Sensing that this was a barrier to increased wheat production, the Premier, George Reid, introduced legislation into Parliament in 1895 to provide squatters with long leases. It also aimed at closer settlement. Whilst urban settlement from 1865 "had increased from 160,000 to 730,000, the country population had risen from 190,000 to only 338,000 and there were only 40,000 country holdings". (5) The impact of the depression was not only reflected in short statistics. It "left its imprint on habits of thought and business and banking practices for some time after 1900". (6)

The depression had far reaching effects on the development of the railway system. "After 1890, the new criterion for railway building, at least in the southern and central west, was wheat growing and wheat growing potential". (7)

(2) E.A. Boehm, Prosperity and Depression in Australia in 1887-1897, London, Oxford University Press, 1971, p. 49.
(4) D.N. Jeans, An Historical Geography of New South Wales to 1901, Sydney, Reed, 1972, p. 228.
Robinson argues that "commercial depression during the 1890s forced a re-evaluation of railway building and an even greater emphasis on prospective revenues". He added that "for the most part over this later period, the Government functioned as might a private railway company". Policy had changed so considerably that the Government, in the case of proposed extensions to Finley and Germanton in 1898, insisted that the land for the railway be given free. Robinson said that "the choice of lines rested upon profit for the railways, rather than the needs of the people".

Whereas in the six years from 1886 to 1892 the Government opened 571 miles of railway, in the six years from 1893 to 1898, the Government opened 499 miles — a reduction of 13%. It was not so much in the reduced mileage that the effect of the depression was seen but in the lower standard of rail construction work.

The Government allocated less and less capital funds to the rail administration from 1892 to 1897, after which the level increased slightly until 1902 when it started to drop again. The level of funds in 1893 was only 39% of the 1885 level and in the years 1895, 1896 and 1897, it averaged only 15% of the 1885 figure.

Deane's response to the adverse economic climate was, on the one hand, swift but, viewed another way, slow. His widespread application of timber was the initial swiftness, but the delay in implementing less costly designs until 1897 showed considerable sluggishness.

In 1893, the Government extended the Illawarra line from Bombo to Bomaderry. Apart from the Kiama structure, all buildings were of timber using the 1889 skillion roofed design at Toolijooa, though some were longer structures as at Gerringong, in figure 235. In the same year, the Government opened the line from St. Leonards to Milsons Point. Again, all structures were of timber construction.

(8) ibid., p. 220.
(9) ibid.
(10) ibid., p. 217.
(11) Calculated from Appendix 1, Chapter 1.
(12) Calculated from table 7.5, Chapter 7.
(13) ibid.
The structure at Wollstonecraft was similar to that at St. Leonards but the former was a transition structure featuring the large fabricated brackets in place of posts supporting the awning. The difference is evident between figures 236 and 237. At Waverton, Deane approved a new design which has been described in Chapter 14 and at Milsons Point he approved a combination terminal station.

On the extensions from Cootamundra to Temora and Molong to Forbes, Deane used only two designs. He employed skillion roofed timber structures for all locations except Temora, Parkes and Forbes, the design of these three buildings being a transitional version of Whitton's standard roadside station. The similarity is evident in figures 224, 225A and 238. Unlike Deane's design at Kiama, the Parkes and Forbes buildings contained gentlemen's waiting rooms and sanitary accommodation in structures not under the main roof line.

In 1894, the depression had an adverse effect on rail operations. Suddenly the Railway Commissioners placed considerable importance on the need for revenue to meet not only operating charges but also capital costs. In their 1894/95 report, they expressed grave concern about the viability of the isolated Lismore-Murwillumbah line and said that it was "hopeless to expect working expenses and interest upon the authority for construction to be provided by its own traffic". Once again railway station architecture responded, though sluggishly, to this economic adversity with design modifications which would permit more economical changes. In addition, Deane erected the buildings on the Lismore line at ground level without the use of

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(14) L.A. Clark, North of the Harbour, Broadmeadow, Newey & Beath, 1976, p. 136, has a photograph of skillion roofed structures on both platforms at Wollstonecraft. It is possible that the larger gabled roof and the skillion roofed buildings co-existed simultaneously.

(15) Plan of Milsons Point signed by H. Deane, dated by draftsman 23rd May, 1892, State Rail Authority Archives.

(16) Transitional in the sense of showing most of the features of Whitton's standard roadside station, but the awning brackets of Deane's 1892 initial island/side platform design.

(17) Deane approved Parkes & Forbes from the same plan which is signed by Deane, dated 28th February, 1893, State Rail Authority Archives.

(18) Railway Commissioners, Annual Report to 30th June, 1895, Sydney, Government Printer, 1895, p. 3.
raised platforms. This was the first time this had been attempted. Of three rooms, the Lismore and the Byron Bay structures were transitional structures as in figure 239, the remainder being skillion roofed buildings. Deane achieved substantial cost savings. He awarded a contract for the erection of six structures between Lismore and Booyong at a cost of 5,139/14/7. Keeping in mind that the Queanbeyan building, which was planned in 1887, cost £10,000 the Lismore line structures achieved their economic goals.

Whilst the Government achieved economies in the country, it incurred higher costs in the city. In his 1893/94 Annual Report, the Director General of Works referred to the increased costs which were being incurred "through the introduction of island platforms". This was a reference to the structures then being erected on the new branch line between Sydenham and Belmore. In 1894, Deane was overseas investigating light railway construction and this was probably the reason for Thomas Firth approving the plans for the structures on the Belmore line in that year. At the time, Firth was the second in charge of the Existing Lines Branch and his approval of buildings for new lines was the first and only time when an engineer working within the railways administration gave approval for new building construction, the responsibility for which came within the Department of Public Works.

Firth approved a single plan which covered Marrickville, Canterbury and Belmore, as in figure 127. The design was very similar to that which Deane used at Kiama in 1892. It was the same length (109 feet), had one

(19) See photograph in no author, Lismore 100, Lismore City Council, 1979, p. 93. Engineers subsequently raised the platforms when through passenger services started to operate in 1930. Official photograph No. 1024, State Rail Authority Archives, shows a timber platform 6 inches above ground level.

(20) Department of Public Works, Annual Report to 30th June, 1895, Sydney, Government Printer, 1895, p. 12.

(21) Department of Public Works, Annual Report to 30th June, 1894, Sydney, Government Printer, 1895, p. 3.

(22) Firth approved plans for the same structures in 1894 and 1895. One is dated 18th January, 1894 and the other 27th August, 1895, State Rail Authority Archives.
curved exterior wall like the Kiama building, had the same bracketed awnings on both sides of the platform and possessed the same positioning of the toilets. Unlike Deane's floor plan, the general waiting room was positioned in the middle of the structure. In addition, the staff issued tickets through a ticket window facing a "booking hall" at the end of the structure rather than opening on to the general waiting room. Firth also omitted the parcels office.

The re-arrangement of ticket issuing facilities meant that staff could no longer use the window to supervise waiting passengers. This increased the opportunity for vandalism. By placing a set of doors in front of the ticket window, the impairment of vision from the window prevented supervision of one end of the platform as well as reducing the amount of sunlight into the booking office. These difficulties were overcome in subsequent examples when engineers omitted the "booking hall", thereby having the ticket office facing directly on to the platform. With the erection of Kiama and the Belmore line structures, engineers had provided two different floor plans revolving around the positioning of the ticket office window. These arrangements would be used again and again for the next 30 years. Overall, the floor plan differences were minimal. The absence of the parcels office was possibly done because Firth saw the Belmore line buildings as commuter stations purely for use by urban users.

The major difference between the Belmore line buildings and structures planned earlier in the Late Victorian period was the high degree of ornamentation on the former. Whereas Deane placed ventilators over toilets and elsewhere on the roof, Firth provided additional ornamental transverse ventilators along the roof line. Firth also provided an awning on three sides. In addition to using ornamental mouldings around openings as Deane had done, Firth made the structures even more impressive by using three colour brickwork, as in figure 240. This was the first time that engineers used different coloured bricks as ornamental features. Similarly, it was the initial use of coloured glazing bars in the fenestration.

Surprisingly, the three Belmore line structures were relatively cheap, considering the high degree of presentation. The brick structures at Marrickville,
Canterbury and Belmore, as well as the timber unit at Dulwich Hill, cost £5,801 2s. 10d. Nevertheless, the use of brick, particularly multi-coloured brickwork, and the impressive awnings, awning supports and rooftscape, were great changes from earlier structures.

The erection of the ornate brick structures on the Belmore line refutes Roberts' assertion that the "shortage of funds ensured that the Government would continue in its reluctance to undertake certain works of transport improvement, while the character of those improvements it did effect reverted to being cheap, piecemeal and palliative." (24)

Two propositions are put forward to explain the high standard of buildings on the Belmore line in the absence of known reasons. Firstly, Firth may have taken the opportunity of Deane's absence overseas to display to the Government, public and everyone, the architectural and engineering expertise of the Existing Lines Branch. This was the first time the Branch was able to introduce a new design and it seized the chance. As a result of the 1887 Board of Inquiry report into the Department of Public Works, it would have been virtually impossible for the Existing Lines Branch to use designs independent of the Railway Construction Branch because of the increased inter-Branch communication and the responsibility of the Chief Commissioner to approve all designs. Following Deane's return to New South Wales, the Existing Lines Branch never again implemented a new design.

The second proposition is that Firth may have approved a very embellished design as a symbol of urbanisation. (25) Sydney was expanding rapidly and engineers may have thought that the speed and size of urban expansion should be reflected in the station buildings that served those areas. Adopting this approach, it would have to be argued that Deane would have used the same designs along the line had he remained in New South Wales and not gone overseas.

(25) This was the case in the United States of America. See K.L. Bryant, "The Railway Station as a Symbol of Urbanisation in the South, 1890-1920", South Atlantic Quarterly, Vol. 75 No. 4, Autumn, 1976, pp. 493-500.
In view of the similarity of designs between the Kiama and Belmore line structures, it could be perceived that Deane would have used the same pattern but not because of any link to urbanisation. Deane would have done so as he, like Whitton before him, realised the economies from repeating the same designs. However, his appreciation of economy may have seen the elimination of the more ornate, but non-functional, aspects of the design, such as the ornamental roofscape, multi coloured brickwork and three sided awning. It is these aspects which seem to be the work of the Existing Lines Branch, given its predilection for grandiose displays in the High Victorian period.

Apart from the three brick structures on the Belmore line, the only other intermediate stations on the Belmore line were Dulwich Hill and Campsie, at each of which Deane approved in 1895 a timber structure with a gabled roof, as in figure 60. Its major design characteristic was the extension of the roof rafters to form a two feet six inch awning on each side. Like the brick buildings on the line, engineers situated the timber structures on island platforms, thereby requiring a degree of symmetry as evident in the balanced awnings.

Deane approved the timber design for Dulwich Hill and Campsie in February, 1895, after his return to Australia. The spartan design was indicative of his policy of endeavouring to achieve economies where possible. The use of extended rafters had been applied in only two instances prior to 1895. Firstly, Francis Bell approved the technique in 1857 for one of the two plans extant for Honeysuckle Point. (26) The second occasion was in 1885 when an unknown engineer used it for a two room structure at Nashdale which featured fretted boarding above the entrance to the waiting room similar to those instances in which engineers applied the technique to the awningless gabled roof design at Fassifern. (27)

(26) Plan signed by F. Bell dated 13th July, 1857, State Rail Authority Archives.
Deane's design for Dulwich Hill and Campsie was a modified and cheaper version of the awningless gabled roof design used in the second half of the 1880s. He had eliminated the only ornamental feature—namely the fretted timber work above the entrance to the waiting room. Less ornate work meant more economy. Deane also achieved economies through the elimination of the ladies' toilet; he provided only a separate men's toilet, the exterior of which was clad with corrugated iron. By placing the door to the "ticket and parcels office" in the wall fronting the general waiting room, he permitted greater economy through the continuing use of exterior weatherboards to exterior walls.

The buildings at Dulwich Hill and Campsie were the smallest two room structures approved to that date, measuring only 28 feet by 12 feet. It seems surprising that Deane incorporated the parcels function in the building, whilst Firth omitted the same function from his design, which measured 108 feet. Just as it appears that Firth had no regard for the need of economy, it may well be that he did not recognise the necessity to incorporate a parcels office, using the space for a useless "booking hall".

No matter whether engineers came from the Existing Lines Branch or the Construction Branch, they tended to perceive that the functional needs of political pressure of urban dwellers, particularly those in the Sydney area, were different from those in rural areas. Out of the sight of urban critics, engineers tried to provide minimal facilities. In 1893, the local Parliamentary representative for Woy Woy, Richard Stevenson, informed the Legislative Assembly that:

"We have at Woy Woy, a railway platform at which in 16 days, 500 passengers were landed according to the Commissioner's return, yet there is not the slightest accommodation at that platform for the public. The Commissioners admit the necessity for accommodation being provided, but they say that they cannot find the funds. Paragraph after paragraph has appeared in the newspapers calling attention to this disgraceful state of things, yet we can get nothing done." (28)

In reply, the Colonial Treasurer indicated that it was true that there were no funds and that there are a number of cases of similar kind. The Treasurer went on to point out that the Chief Commissioner had indicated to him that there was "no great population about the locality" and that the station was used only at "holiday times". (29)

At Nevertire, engineers provided no shelter. In 1898, the local newspaper said that "no awning or covering of any kind has been provided to protect the passengers from either rain or sun". (30)

Not only did engineers provide large and ornate structures in urban areas such as those on the Belmore line, they also made improvements to existing buildings. The awningless gabled roof design had proved unsatisfactory for the reasons outlined in the instance at Nevertire. This applied equally in rural and metropolitan areas but there is evidence to indicate that some of the urban located structures later received awnings, as at Warrawee. (31) In other instances in urban areas, the Existing Lines Branch erected substantial brick structures as at the up platform at Hamilton (32) and the very substantial overhead facility in 1900 at Strathfield, as in figures 263 and 264.

An explanation of the difference between urban structures and buildings in rural locations based on the distinction between the work carried out by the Existing Lines Branch and the Construction Branch is unsupportable. With the duplication of the lines radiating from Granville to Campbelltown and Penrith in the 1890s, the Existing Lines Branch used the same skillion roofed buildings as at Canley Vale and Cabramatta, as in figures 241 and 242, that the Construction Branch was employing on rural extensions.

(29) ibid.
(30) The Warren Herald, 8th January, 1898; it would seem that the original structure at Nevertire was burned down and only the men's toilet and one room of the former five room structure remained. A photograph of these two rooms, showing no awning, appears in R.M. Brennan, Across the Black Soil Plains, no publisher, 1972, p. 48.
(31) See photograph in Clark, North of the Harbour, p. 139.
It would seem that engineers used brick structures at Strathfield and Hamilton because both were important junction stations. Even where the Existing Lines Branch later used the Deane design for replacements, it adopted Deane's policy of providing a less ornate presentation as did occur at Turramurra and Epping in 1899, shown in figures 243 and 244, the plans of which were both approved by Firth.\(^{(33)}\) Although no further examples of the Deane design were used in the Late Victorian period, subsequent examples became even less ornate and by the 1920s the examples were often ugly, featuring poor brickwork.

In seeking Parliamentary approval for the extension of the rail system from Jerilderie to Berrigan in 1895, the Government indicated that it "is intended to carry out the best ideas on a pioneer line of railway".\(^{(34)}\) The Secretary for Public Works indicated the main features of this type of railway included cheap construction over only level country and operation of trains in only daylight and at a maximum speed of 15 miles per hour.\(^{(35)}\)

The total cost of buildings between Jerilderie and Berrigan was £1,100.\(^{(36)}\) It is not clear how many or what buildings were included in this sum. It may be that the structure at Green Swamp Road, shown in figure 245, dates from the opening of the line in 1896. The siting of the building at ground level without a platform suggests this. The structure had the same measurements and floor plan as Deane's design for Dulwich Hill and Campsie, though that at Green Swamp Road had a skillion roof. As the Belmore line stations had island platforms, Deane could not have applied skillion roofs because it would have looked ungainly from the rear, but this did not apply with side platforms and it was possibly for this reason that the cheaper roof was applied at Green Swamp Road.

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\(^{(33)}\) Plan of Epping signed by T.R. Firth dated 11th September, 1899, and Plan of Turramurra signed by T.R. Firth dated 9th October, 1899, State Rail Authority Archives.


\(^{(35)}\) ibid.

At the terminus at Berrigan, the only evidence of the original structure is the off-platform lamp room, as in figure 246. This was juxtaposed to the off-platform men's toilet though the two rooms had different types of roofs as seen in the extant arrangement at Finley, dating from 1898. This was the first time engineers had placed buildings relating to the operation of passenger services off the platform. It would appear that they took the opportunity to achieve economies by using corrugated iron sheeting for the exterior of the toilet and lamp room but, as there was no space limitation, they removed these two rooms to a location which would be less obvious. About the same time, it would appear that engineers continued to use high level platforms, as at Berrigan, Condobolin and Warren. (37)

Notwithstanding the Government's announcement of the Jerilderie-Berrigan extension as the first pioneer railway, the Department of Public Works stated that the branch line from Nevertire to Warren was "the first experiment" of the pioneer system. (38) In his 1896/97 annual report, the Director General said that the Warren branch was the first occasion on which day labour had been used "on a comparatively large scale" for the construction of railways. (39) He referred to the "considerable difficulty experienced by the Department in procuring the skilled labour required for some portions of the work". (40) In the same report, Deane supported the use of day labour because contractors often made demands for extra payments and he said that the "Department has had, in the past, to face not a few very heavy claims on the part of contractors". (41)

Deane's point was well made in the costs the Government incurred in the reconstruction of Macdonaldtown station. In 1893, the contracting firm of Murray & Stewart made a claim on the Government for an additional payment of

(37) Based on photograph of Condobolin in W.A. Bayley, Standard Gauge Railway Across Australia, Bulli, Zig Zag Press, no date, no pag. It would appear in the case of Condobolin that the men's toilet was placed on the platform.
(38) Department of Public Works, Annual Report to 30th June, 1897, Sydney, Government Printer, 1897, p. 3.
(39) ibid.
(40) ibid.
(41) ibid., p. 4.
which they argued had been incurred by them on top of their estimate of £4,288/5/10. (42) After consideration of the claim, the Railway Commissioners paid the contractors £7,500. (43) Despite the applicability of Deane's remarks to station buildings, the system of day labour construction never extended to the erection of station buildings up to 1917. Other than a few instances, contractors continued to erect all structures while day labour was restricted to the construction of the permanent way.

In support of the Department of Public Works' claim that the Warren branch was the initial pioneer line, it was Warren which was the first location to receive a new design of building that was to be used almost exclusively on pioneer railways. Deane approved the design, as shown in figure 56, in 1897. It achieved economies through the use of timber for exterior wall coverings, elimination of all embellishment, the use of a short, narrow awning, the elimination of brick chimneys, the absence of a front wall to the general waiting room and the use of an off-platform men's toilet clad with corrugated iron sheeting.

Measuring 50 feet by 17 feet it was compact but adequate for the trade offering. A significant omission in the design was the parcels office, the duties of which were carried out from the "store". In subsequent years, engineers had to extend the store to incorporate a parcels office, as at Tumut, in figure 126. Another awkward feature of the design was the absence of a door between the ticket office and the store to facilitate the receipt and despatch of parcels. Apart from the inadequacies of space for a parcels office, which became a source of later amendment, engineers also lengthened the awning to the full length of the building, as at Pokataroo, shown in figure 55.

Despite the assertions that "pioneer lines have been designed and carried out in the most economical manner", (44) this was not the case at Warren, where W. Mitchell erected the station building at a cost of £2,047/18/2. (45)


(43) ibid.

(44) Department of Public Works, Annual Report to 30th June, 1897, Sydney, Government Printer, 1897, p. 3.

In 1898, Deane achieved additional economies in implementing the pioneer design at Finley by placing the structure at ground level, as in figure 73. The intermediate station at Leniston, at which there was a two room skillion roofed structure like that at Green Swamp Road, was also at ground level.\(^{(46)}\)

Ferrie is very critical of the pioneer buildings, calling them "a lower standard than the stations of 1855", because of their increased exposure to the weather.\(^{(47)}\)

This regression in architecture was not restricted to railways as it was claimed that any of the schools "built in the 1890s might have been erected during the 1850s".\(^{(48)}\)

Whilst there is no evidence for the view that Chief Commissioner Eddy was responsible for the concept of pioneer lines,\(^{(49)}\) the architecture of Deane's pioneer station correspond to the movement in architecture generally away from detail in the 1890s.\(^{(50)}\)

Although the skillion roofed structures of the 1890s had some similarity with those of the 1850s, the more substantial link in the 1890s existed between Deane's 1898 pioneer design and domestic architecture. The structure at Warren looked precisely like many houses, such as that at Barraba, in figure 247, and that at the opposite end of the Colony at Moulamein, in figure 248.

Art nouveau may have been an influencing factor.\(^{(51)}\)

Deane had endeavoured to implement a cheaper design, but failed. This is reflected in the expenditure on the Warren structure. Moreover, the floor plan was inadequate, particularly in the non-provision of a parcels office and small shelter over the platform. On top of these inadequacies, his design looked like many other ordinary domestic residences and was thus a poor symbolic indicator of community prosperity.

\(^{46}\) Photograph No. 1367, State Rail Authority Archives shows the building. Also shown in New South Wales Railway Budget, 7th December, 1901, pp. 9 and 10.


\(^{49}\) As argued by the Railway Institute. See The Staff, 23rd November, 1928, p. 645.

\(^{50}\) M. Herman, The Architecture of Victorian Sydney, Second Ed., Sydney, Angus & Robertson, 1964, p. 140.

Although there is no evidence to support the view, it is probable that it was the need to provide a more obvious and ornate design that prompted Burge, acting under delegation from Deane, to introduce in 1900, a modified version of Deane's 1897 design at Grenfell, as shown in figures 57 and 58. The importance of symbolism is reflected in the use of centre access to the building. Unlike the 1897 original, people had to now directly approach the structure to gain entry to the platform and to purchase tickets. This forced attention to the building. Other symbolic indicators included the use of roof ventilators, brick chimneys and ornate brackets to support a full length and full width awning over the platform. Although the structure was 10 feet longer than the 1898 prototype, the floor plan was much the same, though the front of the general waiting room was covered.

Whilst Burge managed to provide a more ornate structure, he was unsuccessful in rectifying the absence of the parcels office. Not only did he provide one, but he made a mistake in not installing double doors at the rear of the store to facilitate the transfer of parcels from the store onto road vehicles. This feature had been used in the Warren structure. However, whereas Deane did not provide a separate entrance to the store for the public in the Warren structure, Burge did so at Grenfell. As was the case with Deane's 1898 design, engineers had to provide additional floor space in later years for a parcels office, as at Inverell in figure 249.

It would appear that the attempt to upgrade Deane's 1897 design into a more symbolic structure was largely unappreciated by the press. In the instance of the opening of the line to Warren, the local press stated that "passenger requirements are particularly well looked after". This rather superficial coverage probably referred not to the building but to the horse-bus service that a local operator provided between the station and the town. The general disinterest in or lack of knowledge of station buildings did not improve with the introduction of the 1900 modified design used initially at the opening of the line to Grenfell in

1900. On that occasion, the press made no reference to the Grenfell structure, but instead made the comment that at Greenethorpe, shown in figure 4, "there is a nice station building". Keeping in mind the frugality of both the Warren and Greenethorpe structures, it can only be considered that the local residents were thankful to have a railway services of any description and did not have any particular community spirit which they considered should be reflected in a larger or more ornate structure.

15.2 THE POSITION IN 1900

With the introduction of Deane's pioneer design in 1897 and Burge's modified version in 1900, railway engineers largely used only three designs. They employed Deane's 1892 island platform style for the most important locations, Deane's or Burge's design for country terminals and some replacement work as at Aberdeen in 1899 and Murrumburrah in 1900 and skillion roofed structures of varying sizes at all other locations.

The design of station buildings had slowly shifted with the decline in the economy generally but there is no obvious link between statistics and designs. The economic factors were more the views of railway administrators who for the first time since the early 1870s espoused the policy that railway revenue should meet direct costs and the concomitant view that the expenditure on station structures should be related to the level of traffic at the particular location. The macro function of buildings outside Sydney was in the process of changing away from full mainline service units to branch line structures with restricted facilities.

The period of experimentation in design which had begun in 1886 in order to find cheaper designs concluded in 1900. By 1900, engineers had introduced the most economic designs; they could achieve no further economies by altering form or floor plan.

(53) The Grenfell Record, 1st June, 1901, p. 2.
(i) Books


Jeans, D.N., An Historical Geography of New South Wales to 1901, Sydney Reed, 1972.


Ward, R., Australia, Sydney, Ure Smith, 1969.

no author, Lismore 100, Lismore City Council, 1979.

(ii) Journals


New South Wales Railway Institute, The Staff, 23rd November, 1928.
(iii) Official


(iv) Annual Reports

New South Wales Railway Commissioners, Sydney, Government Printer, various dates.

New South Wales Department of Public Works, Sydney, Government Printer, various dates.

(v) Theses


(vi) Newspapers

Grenfell Record, 1st June, 1901.

Warren Herald, 8th January, 1898.
FIGURE 245 - GREEN SWAMP ROAD

FIGURE 246 - BERRIGAN
CHAPTER SIXTEEN

EDWARDIAN 1901-1916
16. EDWARDIAN PERIOD (1901-1916)

16.1 THE ACCUMULATION OF PROBLEMS

The Edwardian period was a time of substantial growth in the size of the rail network. The Government opened over 20 branch, connecting and main lines with an aggregate mileage of 1,392.\(^{(1)}\) The level of capital funding allocated to the railways administration fluctuated from 1901 to 1907 when it increased almost every year until 1916. From a low of £0.3 million in 1903/04, the allocations increased gradually, reaching a peak of £4.9 million in 1913/14.\(^{(2)}\)

The physical direction of the extension of the rail system in the period followed closely the changes in the structure of the economy. The depression of the 1890s had "provoked the structural change required as a basis for further advance".\(^{(3)}\) In the early 20th century, the economy relied "heavily on more intensive forms of land use which had been previously held in check by restrictions of the market for primary products other than wool and minerals".\(^{(4)}\) Relative to sheep and animal husbandry, agriculture became more important. Between 1890 and 1910, agriculture had increased in size from 15% to 20% of the total of primary production whilst over the same period the pastoral industry had decreased its share from 50% to 44%.\(^{(5)}\)

It was wheat that formed the main ingredient in the increased value of agriculture. This stemmed from technological improvements to farm machinery, introduction of improved varieties of wheat from cross breeding, low cost land in non-marginal areas being cheaper in New South Wales than in other States and to greater market opportunities following federation which eliminated interstate tariff barriers.\(^{(6)}\)

\(^{(1)}\) Calculated from Appendix 1, Chapter 3.
\(^{(2)}\) Table 7.5, Chapter 7.
\(^{(4)}\) ibid.
Agriculture also gained in importance as a result of irrigation. The first large irrigation project in New South Wales started in 1907 with the construction of Burrinjuck Dam on the Murrumbidgee River. The Murrumbidgee irrigation scheme was opened in 1912. (7)

The wheat areas of the State were located in many cases in regions different to those where pastoral activities were being undertaken. By the late 1890s, the trunk routes of the rail system had been completed. However, because of the large mileage between these lines, it was very difficult for farmers to undertake wheat and other agricultural production profitably in the absence of rail transport despite its relatively cheaper freight rates compared to road haulage. From the early 1890s, governments had responded to the needs of farmers by constructing new branch lines to agricultural districts. In doing so, railway administration served a new clientele of customer - the farmer. He was poorer than the grazier and, more importantly, he had less political power as a result of his lower social position and a reduced ability from a poorer education to articulate his views through organised pressure groups. The political power of the grazier was evident in the obligation on the railway commissioners to provide special relief between 1900 and 1904 to drought victims by way of rebates for the carriage of stock and fodder. They provided no relief for farmers. In 1903, the drought prompted the commissioners to report that the year 1902/03 was "the most disastrous in the history of the railways of the State." (8)

. During the Edwardian period, the economy altered in structure in other ways and again the rail network responded. This time, the response was more in nature than direction. Although the Eskbank Iron Works had existed in Lithgow from 1875, it was in 1900 that William Sandford built Australia's first steelmaking furnace there, adding two more furnaces in 1902 and 1906. (9) In 1906, Australia's best known oil shale works commenced at Newnes in the Wolgan

(9) A. Trengrove, What's Good for Australia, Melbourne, Cassell, 1975, p. 89.
Valley. A total of 3,000 persons worked at Newnes at the peak of activity. (10)

Along the coast, considerable developments took place in relation to heavy industry. At Port Kembla, the Government resumed 496 acres in 1900 in connection with related harbour improvements and a further 1,470 acres in 1913. In 1908, the Electrolytic Refining & Smelting Company established a plant at Port Kembla which was regarded as "the largest industry of its kind in the Empire". (11) At Newcastle, Broken Hill Proprietary Limited opened its iron and steel works in 1915. (12)

The new industrial expansion occurred at or near locations served by rail. However, the size of the undertakings were such that it was necessary to duplicate the trunk routes to these locations and to Goulburn in order to transport the volume of traffic stimulated by the enterprises and, at the same time, carry all the existing produce to and from more distant locations. The resources required to undertake the duplication work were considerable and work on new country lines so that the men could be transferred to the duplication work. (13)

Just as the railways administration had new clientele in wheat growing areas, it also encountered the same situation in the provision of duplicated lines to the industrial areas. Industrial workers were, in many cases, unskilled and in most instances poorly organised and equipped as a pressure group.

The transport problems of wheat farmers and the existing congestion on track routes were drawn together in 1911 to provide an argument for the construction of connecting lines between the trunk routes. A Royal Commission in 1911


highlighted the need to reduce congestion on main lines that centred on the port of Sydney.\(^{(14)}\) It also argued that "the agricultural areas of the State can only be fully developed by the provision of railways so situated as to permit of settlers making an in and out journey between their holdings and a railway station or siding in a day. Generally, the evidence placed before your Commission supported a 12 mile limit, making an in/out journey of 24 miles".\(^{(15)}\)

Following the release of the report, the Government commenced construction of a cross country line that linked Cootamundra on the southern trunk with Parkes on the western trunk and Narromine on the line to Bourke. This route had a double purpose acting not only as a connecting line but also serving the wheat belt through which it passed for its entire route. In addition, the Government opened many other branch lines in agricultural areas.

In line with structural change in the economy, the rail system altered both its physical direction and nature to meet the change. The changes in the rail system had significant implications for the design and erection of station buildings. From about 1870 to 1892, the rail system expanded to include the Colony's largest inland centres. Following the high standard of structure which Mason approved for Goulburn in 1868, residents of other large cities and towns desired to have a station building which was at least the equal of those at other centres. It was not so much an interest in railway architecture per se but rather a community desire to have a comparative symbol of regional prosperity and progress. By the time of the start of the Edwardian period, the rail system had reached most large inland towns for which engineers had approved high standard, attractive buildings. These structures largely placated the demands, not always explicitly expressed, of those communities. The towns and localities the railway served by new lines in the Edwardian period were mostly


\(^{(15)}\) ibid., p. xxii. This was obviously before the widespread use of commercial motor vehicles.
small and/or were populated by people who in the majority of instances were simply not in any social, economic or political position to bring pressure, latent or otherwise, on engineers to provide high class buildings.\(^\text{(16)}\)

The small size and relative unimportance of the locations served by rail and the absence of political, economic and social power of their residents permitted railway engineers to continue using mostly unembellished designs which they had introduced in the Late Victorian period or earlier. Throughout the Edwardian period engineers continued to use only three designs - the pioneer design of 1897 and its 1900 modification, the 1892 initial island/side platform design and the skillion roofed design.

Between 1901 and 1912, engineers used Deane's 1897 pioneer design or Burge's 1900 modified version in the most important rural areas. However, the use of these designs was restricted to the Permanent Way Branch from 1908 after which time the Construction Branch used only the remaining two types of architecture. After 1908, the Construction Branch employed Deane's 1892 initial island/side platform type at the most important locations, thereby replacing the pioneer designs. Prior to 1908, the Construction Branch did not employ the 1892 design. However, it was the Permanent Way Branch that applied both the pioneer design and the island platform design indiscriminately between 1901 and 1912, after which it too followed the Construction Branch in employing only two designs.

Over the entire period, both Branches used the skillion roofed design that an unknown engineer approved in 1889 for initial application at Toolijooa. Engineers varied the length of the structure according to the number of rooms that they provided. For example, as part of the trunk line duplication works, the Existing Lines Branch provided a one room structure at Oolong in 1914, as in figure 250.\(^\text{(17)}\) The Construction Branch erected a two room building at Hilldale in 1907, as in figure 34.\(^\text{(18)}\) The same Branch

\(^{\text{(16)}}\) The size and nature of towns is indicated in Appendix 1, Chapter 7.

\(^{\text{(17)}}\) Plan dated 25th September, 1914, unsigned, State Rail Authority Way and Works Plan Room.

\(^{\text{(18)}}\) Plan No. 172/13 signed by W. Hutchinson, dated 27th August, 1907, Office of the District Engineer, Newcastle.
used a three room version at Ravensworth in 1909, as in figure 251. The Existing Lines Branch used a four room example at Frampton in 1905, as in figure 252. The largest example contained five rooms and was used only in a small number of instances, as at Urana in figure 253. These structures provided the lowest costs to engineers of any design. A one room building was estimated to cost £120 and a five room example £430. 

In a similar manner, engineers used Deane's 1892 initial island/side platform design in different lengths. The Existing Lines Branch used a one room example at Galong in 1915 as in figure 254; a two room example at Bowning, in 1912, as in figure 255; a three room example at Branxton in 1914, as in figure 256; a five room structure at Ourimbah in 1912, as in figure 257; a six room style at Valley Heights in 1901, as in figure 258; a seven room building at Moree in 1903, as in figure 259 and an eight room example at Gunnedah in 1913, as in figure 260. The Construction Branch also applied different lengths of this design when it commenced to use the pattern after 1908.

(19) Plan dated 19th January, 1909, unsigned, State Rail Authority Way and Works Plan Room; the signal box was a subsequent addition and the toilet at this location dated from a previous structure.

(20) Plan dated 17th May, 1905, unsigned, State Rail Authority Way and Works Plan Room.

(21) Plan dated 27th August, 1909, signed by W. Hutchinson, State Rail Authority Archives.

(22) Cost for 1 room example from "Standard Plan Al" dated 13th January, 1899, signed by C. Oliver, State Rail Authority Way and Works Plan Room; cost for 5 room example from New South Wales Railway Specifications, Vol. 9, 1910/11, no pag, State Rail Authority Archives.

(23) Plan dated 24th October, 1913, unsigned, State Rail Authority Way and Works Plan Room.

(24) Plan dated 16th November, 1912, unsigned, State Rail Authority Way and Works Plan Room.


(26) Plan dated 14th May, 1912, unsigned, State Rail Authority Way and Works Plan Room.

(27) Plan dated 10th December, 1901, signed by T.R. Firth, State Rail Authority Archives.

(28) Plan dated 11th February, 1903, unsigned, State Rail Authority Way and Works Plan Room.

(29) Plan dated 17th January, 1913, unsigned, State Rail Authority Way and Works Plan Room.
Engineers did not alter Deane's pioneer type or the modified version in any way. They continually built examples to the same measurements. The cessation of use of these designs after 1908 by the Construction Branch appears related to an awareness by engineers to the need to slightly upgrade the level of overall presentation of station buildings. The stimulus may have stemmed from the establishment of a system of local government in 1906 which possibly assisted in the formulation of organised community pressure to highlight the importance of regional development and thereby demonstrate the need for higher standards of station building designs. By rationalising local government in 1906, the State Government had assisted in the formation of more powerful local pressure groups. This was reflected by the ability of local government bodies to prevent the State Government from implementing certain actions of a non rail nature. For example, in 1912 local government bodies forced the withdrawal of a Bill from Parliament which would have established a State-wide Main Roads Board that would have taken power away from local government councils to control road construction. (30)

Engineers probably read press reports of the opening of lines and found no reference to the station buildings. This was the case at Brewarrina, Inverell, Grenfell, Crookwell, Grafton, Warralda, Walgett and Wyalong. (31)

In response to the pressure to minimise expenditure because of a "shortness of funds", (32) engineers had achieved cost savings in architecture but at the expense of attractiveness. It would seem that, in some cases, they had underestimated the importance of providing attractive buildings at larger centres. Possibly in response to the recognition of these locations, aided by the formation of local government councils, engineers made a change to the architecture policy in 1910.


(31) See Brewarrina Times, 14th August, 1901, p. 2; Inverell Times, 30th November, 1901, p. 2; Grenfell Record, 1st June, 1901, p. 2; Crookwell Gazette, 25th April, 1902, p. 2; Grafton Argus, 9th November, 1905, p. 2; Warralda Standard, 3rd December, 1901, p. 2; Walgett Spectator, 14th November, 1908, p. 2 and Wyalong Star, 15th December, 1903, p. 2.

They abandoned the use of pioneer buildings for new lines in 1908 and, after using skillion roofed structures for all rural locations until 1910, introduced in 1910 the slightly more attractive Deane initial island/side platform type. The first instance in which this occurred and the first time in which the design was employed as a side platform building (as opposed to the island platform arrangement) was at Peak Hill in 1910, shown in figure 261. This was also the first time the design had been used for all timber construction. Although the Existing Lines Branch continued to use the pioneer design until 1912, it did so on only two or three occasions. There does not appear to be any link between Deane's 1904 overseas visit to examine cheaper forms of rail construction and the later changes in architectural policy.

In the Edwardian period the Construction Branch use brick only on two occasions – at Bankstown in 1909 and Toronto in 1911. On the other hand, the Permanent Way Branch used both timber and brick for replacement structures. The cessation of the usage of pioneer designs in 1908 appears to be a action to diffuse any criticism that there was a distinct difference in design policy for large urban areas and rural locations. By taking this action in 1908, Hutchinson could claim that, at the opening of the Bankstown line in 1909, there was no discrimination – a fact he supported by the use of the same design at Peak Hill one year later.

All throughout the Edwardian period, State politics was divided into city versus country. From 1893, electoral legislation which operated until 1926 provided a "margin of allowance so as to leave country electorates generally with fewer voters ... than metropolitan ones". Between

(33) The structure at Binya predates the Peak Hill building by four years. Originally it had no awning, it being added in 1936. See plan of Binya dated 31st August, 1936, unsigned, State Rail Authority Way and Works Plan Room.

(34) These are Marrar in 1912, Coonamble in 1910 and possibly South Grafton in 1919, though there may be an official error in the dating of the plan for this last structure.

1899 and 1904, a country based Ministry was in office. Responsibility for rail construction came within the portfolio of the Minister for Public Works, E.W. O'Sullivan, who "promised the country districts an administration in their interests". (36)

O'Sullivan was in charge of the railways and took the opportunity to implement a number of radical measures which, whilst he had sincere motives, were viewed by his political opponents as disastrous for the State. He implemented an active public works programme and "the whole expenditure of public works jumped spectacularly". (37) He endeavoured to fulfil a personal commitment to develop the country's resources and simultaneously assist in the reduction of unemployment by replacing construction by private contract with the use of departmental day labour. He also introduced a minimum wage some years before the Harvester judgment in 1907.

Despite O'Sullivan's attention to the development of country resources, he was condemned by country based political opponents because he was thought to be using country public works projects "to finance the Sydney unemployed". (38) Moreover, he was accused of interfering with the laws of supply and demand. (39) Although the Government was defeated in 1904, it very much remained a rural administration from then until the end of the Edwardian period notwithstanding the assumption of office in 1910 by the Labor Party, the first time in New South Wales.

It was not difficult for country people to perceive a difference between stations in rural and metropolitan areas. For example, the Government expended only £75 for the provision of a platform and waiting shed at Coonamble in 1903. (40) Although no knowledge of the type of structure

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(37) ibid., p. 390.
(38) ibid., p. 391.
exists, it must have been poor as, following a fire in 1910, the replacement structure of brick construction cost only £560.\(^{(41)}\) Even on the privately owned South Maitland Railways, engineers had little regard for passengers who in 1902 at Stanford Methyr had to wait under trees in the absence of station accommodation.\(^{(42)}\) At Portland, the local Parliamentary representative complained that the station had only a "waiting shed" (costing £95) and desired immediate improvements.\(^{(43)}\) In reply, the Treasurer said that the "plans for improvements under consideration" but indicated that "the work will be proceeded with when funds are available".\(^{(44)}\) It is significant, that when the Government opened a new station on a new site in 1911, the design was Deane's 1892 initial island/side platform type. Although the opening of stations on new sites tended to stimulate public debate about the merits and demerits of new locations, this was not the case at Portland. It was, however, at the opening of Wyalong Central in 1903 when the press requested a second station to serve the town and supported its case by referring to instances at Harden/Murrumburrah and Lithgow/Eskbank.\(^{(45)}\)

\(^{(41)}\) Order Book No. 256, State Rail Authority Archives. This was one of the few brick pioneer examples; the low cost of this structure is striking when contrasted against the cost of £2,047 for the first timber pioneer structure at Warren in 1897. It can only be assumed that substantial costs related to site preparation, including the construction of a platform that would have been necessary at Warren.


\(^{(44)}\) ibid.

\(^{(45)}\) Wyalong Star, 15th December, 1908, p. 2.
Although country people did generally receive low cost structures, they could not see that people in urban areas were, in the majority of cases, treated no better by engineers. For example, Hutchinson provided brick building at Bankstown and Toronto. He used timber sheds for the intermediate stations on the two lines. On the Toronto line, he approved a skillion roofed structure, while at Lakemba and Punchbowl on the Bankstown line he provided sheds measuring 20 feet by 12 feet with extended rafters which cost only £132/10/- each - not what one would classify as excessive expenditure.

Metropolitan Sydney people also had just complaints as in the case of their exposure to western winds on Strathfield station. With the inclusion of all station accommodation in the overhead building, shown in figures 263 and 264, there was no shelter from winds on the platform. Urban residents in the Newcastle area were not treated any better. In 1912, engineers used the gentlemen's waiting room at Newcastle for office accommodation, thus denying local residents of what would have been a status symbol, keeping in mind that such facilities were very rarely provided. At Maitland in the same year commuters often missed their trains because of the "congested conditions of affairs", particularly in passing through the entrance barrier.

The most pressing need on the rail system at the start of the Edwardian period was urban in nature and largely unrecognised by rural dwellers. It was the need to provide a new Sydney terminal station. Since a royal commission in

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(46) Deduced from alterations carried out in 1948. See plan dated 9th February, 1948, unsigned, Office of the District Engineer, Newcastle.

(47) Costing from New South Wales, Railway Specifications, Vol. 4, 1907/08, no pag, State Rail Authority Archives. For photograph of Lakemba, see The Torch, 20th August, 1980, p. 15; for Punchbowl photograph, see W.A. Bayley, Sydney in the Steamtime, Bulli, Austral Publications, no date, p. 58.


1891 recommended the extension of the terminus to Hyde Park, various organisations applied increasing pressure on governments to improve access from the Sydney railhead to the city itself. In 1900, the Standing Parliamentary Public Works Committee rejected the proposal, but the Government recognised the need for more space at the Sydney station and legislated for a new site (the present location) in December, 1900.

It was O'Sullivan, the pro-country Minister for Public Works, who responded to the pressure for a new terminal. This was probably one of the instances which contributed to his political downfall in 1904. Country people did not realise that O'Sullivan was providing an "ediface" dedicated to them. (51) Far in excess of actual operational facilities at the time of the opening, the new terminal shown in figures 265 to 269 was an operating statue to future prosperity. (52)

It seemed that the new Sydney terminal station was being used as a long term offering to both suburban commuters and country travellers to placate their otherwise unfulfilled expectations. The Premier opened the new Sydney station on the 4th August, 1906. The design of the structure was "the result of the deliberations of a special board" including Mr. T. Firth, Engineer-in-Chief for Existing Lines, the Government Architect, Mr. W. J. Vernon, and the Engineers-in-Chief of the Queensland and Victorian Railways. (53) The estimated cost was $1,123,000 and the actual cost $1,386,729. (54) It had an 'umbrella' type roof covering the main assembly area measuring 378 feet by 70 feet. Linked to


(52) Commissioner Fraser in 1919 said that, whilst considerable excess capacity had been provided, traffic had increased so much from 1906 that it was necessary to add four more platforms in 1914. J. Fraser, The Development of the New South Wales Rail System, unpub. address to Interstate Gathering, Institution of Civil Engineers, October, 1919, State Rail Authority Archives, p. 10.

(53) A detailed description of the structure is located in New South Wales Railway and Tramway Budget, 1st September, 1906, pp. 5-20.

this were 15 platforms with an average length of 700'. Besides Albury station, it was the only station to have a clock tower but this was not brought into use until 1921 at which time the second stage of the structure was opened.

The Board consulted with Henry Deane, who was the Engineer-in-Chief for railway construction, "regarding the general principles and details of the scheme which he had prepared. The design was then recommended to the Minister (O'Sullivan) and the Railway Commissioners. In line with O'Sullivan's directions, construction was performed by day labour until Deane retired in 1905, from which time the Government Architect took over control using contract labour.

The building was described as "Renaissance style" and as having a "sense of magnificence". However, the Railway Institute criticised the structure because it "does not accomplish its mission as a city extension". In performing the opening ceremony, the Premier chose to refer to the building's symbolic role rather than its functionality. He said that the building "would be associated with the great enterprise of State railways beyond the span of those attending the opening ceremony". O'Sullivan also spoke about the symbolic role by stressing that the Government was "building a station, not for today or tomorrow, but for all time and they were quite justified in adopting that plan".

Despite its grandeur, the Sydney terminal was, like all other station buildings, subject to cost cutting. It was the need to reduce expenditure that resulted in the replacement of a single roof over all tracks with individual platform awnings. Gough points out that the building was not completed as an economy measure. It was possibly also

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(55) ibid.
(56) quoted in ibid.
(57) New South Wales Railway and Tramway Budget, 1st August, 1907, p. 2.
(58) ibid., 1st September, 1906, p. 19.
(59) ibid., p. 20.
(60) Railway Gazette, 7th December, 1912, p. 16.
economies which prompted the use of reinforced concrete for the main floor slab, cited as probably the first use of reinforced concrete in building construction in Australia. [62]

Many different sources considered the architecture praiseworthy. The Railway Gazette in 1912 called it "a most imposing building". [63] The 1924 Fay/Raven Royal Commission called it "... a station not only architecturally good, but so effectively laid out ...". [64] For every supporter of the structure there was another source to condemn it. For example, in 1907, a Department of Public Works report on the structure stated: "The unfortunate persistence with symmetrical planning culminates in Central railway station, a stiff and uneconomical layout is the result with traffic flow subjugated to symmetry". [65]

Atkinson criticises the lighting and colour tones used in the structure, but says that they were "typical of the times". [66]

The opening of the new Sydney terminus in 1906 occurred at a time when two unrelated but contemporary events combined to bring pressure on the manpower resources available for railway construction. Firstly, the drought which had commenced in 1896 ceased in 1904. From that point to the end of the Edwardian period there was a great increase in the amount of both goods and passenger traffic carried. In 1910, the Railway Commissioners reported a 65% increase in passenger traffic and a 9% increase in goods traffic since 1903. [67] Secondly, government workers were being mobilised into trade unions and were becoming more militant. [68] They

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(63) Railway Gazette, 7th December, 1912, p. 16.
(64) quoted by O.S. Nock, Railways of Australia, London, Adam and Charles Black, 1971, p. 76.
(66) ibid., p. 99.
(67) New South Wales Department of Railways, Annual Report to 30th June, 1910, Sydney, Government Printer, 1910, p. 5. The existence of the new terminus may have acted as a stimulant to increased patronage.
were demanding shorter hours, improved conditions and higher wages. In the early years after the turn of the century, wages were depressed and the 1891 level of wages was not equalled in real terms until 1909. (69) In 1907, Justice Higgins handed down the Harvester judgment, in which he insisted that a fair and reasonable wage was to be assessed according to human needs and not related to the fluctuating economic conditions of a particular industry. (70) This judgment and the Government's establishment of wages boards in 1908 proved to be a later burden for railway administrators because it kept the cost of labour high.

In 1910, the Labor Party formed the Government for the first time in New South Wales. In 1912 it enacted the Industrial Arbitration Act which gave the wages boards authority to regularly adjust wages upwards. Because of the large numbers of workers which the Department of Railways employed, the railway finances suffered badly. Both in 1913 and 1914, the wages boards granted large increases to workers. In addition, the Government reduced the hours of work to 48 per week in 1914, and this worsened the railway administration wages bill. By 1915, the position was so difficult that the Railway Commissioners, faced with decreased earnings that year, "made application to the Court of Industrial Arbitration for the suspension of such clauses of the awards of Wages Boards that provide for periodical advances in pay to salaried officers and drivers and firemen etc., on the wages staff, and the Court dismissed the application so that, despite the decreasing earnings, the rates of pay have gone on increasing". (71)

The implication for station architecture was clear. At a time when there was increasing use being made of rail passenger services, the cost of erecting and maintaining structures was rising, as were the costs of all capital equipment. In addition, operating costs were increasing. These meant added pressure to erect cheaper buildings which could be operated by fewer staff. The troubles of railway


(70) Rickard, Class & Politics, pp. 210, 219 and 220.

administrators were compounded by an absence of sufficient skilled staff, particularly bridge carpenters and bricklayers, to undertake all the necessary construction work. The position was so bad that Chief Commissioner Johnson sought and gained Government and trade union approval to seek additional labour directly from England. In 1914, the Government indicated that it could not construct some of the promised rail lines because of the costs associated with duplication and other work.

The increased surge in suburban passenger traffic also placed pressure on the Government for extension of the railway from the Sydney terminus towards the central business district and for the construction of further metropolitan rail lines. The pressure was intensified from 1910 from which year until 1915 suburban passenger journeys increased 73%, from 46 to 90 million. Parliamentary representatives pressed the Government to introduce improvements. The Government responded in 1915 with the City and Suburban Electric Railway Act which provided for a city rail loop as well as new lines to the eastern, western and northern suburbs. The Government established the Metropolitan Railway Construction Branch in the Department of Public Works to carry out the work.

Reflecting a mixed policy of State self-sufficiency and socialist goals, the Labor Government indicated that it would make not only its own bricks, but "ultimately, iron and steel to supply the rails, bridges and locomotives necessary for the industrial development of the State". It was clear from this reference that it was the Government's intention to make the rail administration virtually autonomous in the development of the network.

As well as facing the radically different construction policies of the new Labor Government, rising capital and maintenance costs, the high level of wages, shortages of skilled labour and rising numbers of passenger journeys, the rail administration encountered a further problem in 1914 - war. The First World War brought major

(74) ibid., p. 259. The State Brickwors had been established in 1911.
difficulties. For architecture, this presented two major problems. Firstly, there were fewer men to undertake work and this in turn caused the second problem, namely, increased difficulty in obtaining building materials. As the pace of rail construction did not slow in the War years, it became necessary for engineers to build station buildings that required minimal manpower and material resources.

Writing on the impact of war on architecture, Bunning said that "in times of national stress, such as the Great War, one is brought face to face with hard, cold facts, artificialities are forgotten, for only when living is easy can we afford to indulge in artificialities". (75)

The construction of even the most simple designs was a problem for the State Government in the War. Because the former traditional money sources had almost disappeared, the Government had to undertake new financial arrangements to ensure the continuation of its rail construction programme. In the course of explaining the need for such new financial arrangements, the Premier, William Holman, stated in December, 1914, that "it is because we are confronted with difficulties in the way of finance arising solely out of the War with which we were not faced twelve or fifteen months ago". (76)

Eight months later, the Government entered into an agreement with the London based Norton Griffiths Co., which guaranteed "to underwrite and assist the State from time to time, in raising loans up to £10 million within a period of 5 years". (77)

Moreover, the Company was in the simultaneous process of supervising the construction of 11 branch, connecting and main lines.

Three months after the Government signed the agreement, Hutchinson introduced a new design of "portable" buildings, as shown in figure 49. The plan, which the Director General of Public Works also signed, provided details for two types of structures; a three room building, as at Humula in figure 270, and a one room structure as at Umbango


in figure 48. Similar arrangements existed for the buildings between Garema and Caragabal on the connecting line between Forbes and Stockinbingal and for Gungal and Merriwa. The structures for these stations, except Humula and Umbango, were all approved on 12th October, 1915. A similar design was also erected between Binya and Griffith.

Hutchinson's design was plain in the extreme. Like the 1886 awningless gabled roof design and Deane's 1895 design for the use of extended rafters, Hutchinson's design suggested greatly of economy. The structures had no awnings; they possessed no embellishments; they did not use brick for chimneys or foundation piers; they did not use brackets to mount room designation signs at right angles to the exterior walls; they were the only design to have the station nameboard affixed to the exterior wall; they had off-platform men's toilets but no female toilets and there was no waiting room accommodation (the "waiting room" at Humula in figure 270 was a later alteration), people having to share a room with parcels and other freight in a "shelter shed". Hutchinson sectionalised the structure into three rooms, presumably for "portability". The three room example contained, apart from the "shelter shed", an office and a "private room". The 'private room' appears wasteful, as there was no heating in it and no idea of its intention. Moreover, the sectionalisation of the structure prevented the installation of doors between the rooms, access to which was directly from the platform. However, the 'shelter shed' did have double doors to front and rear to facilitate modal transfer of freight.

Despite the inbuilt potential of portability, engineers did not move any of the known cases. At Denman, subsequent engineers added two extra rooms and an awning, as in figure 271, while at Humula and Caragabal they erected separate additional buildings, as in figures 270 and 5. There were two significant aspects about the architecture; firstly, it was the initial design in which no provision was made for the sale of tickets through a ticket window, people having to enter a room and transact business over a counter and, secondly, it ended the use of the skillion roofed design by the Construction Branch.

(78) The plans for Humula and Umbango do not appear to exist. For Gungal and Merriwa, see plan No. 3/4, Office of District Engineer, Newcastle; for Garema to Caragabal, see plan "Naweenda to Forbes" signed by W. Hutchinson dated 12th October, 1915, collection held by R.T. Taaffe.
The reason for the change in roof pattern is unknown. If economy was the primary consideration, then Hutchinson should have used a skillion roof. As this was not the case, four other suggestions are offered. Firstly, the concept of "portability" may have been a reference not so much to the movement of structures from station to station in accordance with fluctuating traffic conditions, but to the erection of the structures in sections at one location and their transfer in sections to station sites. The gable roof was narrower than the skillion roof and thus could be loaded into a rail wagon and would not be out of gauge. In this way, the concept of 'portability' was more the use of prefabrication. Secondly, the skillion roof design was not suitable for snow conditions as the pitch was insufficient to allow snow to fall to the ground and the use of the gable roof would suit all climatic conditions. Thirdly, just as there was a need to replace the pioneer design in 1908 with an improved design which would be a better symbolic structure, it may have been considered that there was a similar need at that time to replace skillion roofed structures with something better.

It was possible to adopt the gabled roof for all the above reasons but the most likely answer is the fourth suggestion. Just prior to the time of the introduction of the design, engineers used only two types of architecture - either the skillion roofed pattern or Deane's 1892 initial island/side platform design. By eliminating the skillion type, Hutchinson would have entirely standardised railway station architecture with one basic design - the gabled roof type. The only difference between structures was the addition of awnings and the use of some embellishments, such as plinth courses and coloured glazing bars. The ease of the blending of the designs is seen in the modifications to the building at Merriwa, shown in figure 272, which was built to Deane's 1915 awningless design but subsequently modified to appear like an example of Deane's 1892 initial island/side platform design.

It is not known whether the timing of the use of Hutchinson's design in October, 1915, has any direct link with the signing of the agreement with Norton Griffiths and it seems only coincidental. Of three known cases of 'portable' structures, Norton Griffiths were supervising only one of the lines - namely the Forbes to Caragabal line, the others
were being constructed by day labour. Moreover, the agreement did not commence until 1916. Nevertheless, Hutchinson did achieve considerable economies in his 1915 design through the use of standard plans, the application of plain, all timber structures and the initial standardisation of designs. The Government's agreement with Norton Griffiths in the same year was the only option open to the Government which would permit a continued high rate of rail construction in the absence of sufficient loans from other more traditional sources. It does not matter whether or not Hutchinson's 1915 design was designed specifically for the Norton Griffith agreement. The economic conditions were the primary factors in the adoption of the new design. The Government had limited funds with which to undertake a large railway construction programme and Hutchinson had the task of providing a design which would require the minimum amount of finance. This he achieved.

In the First World War the same environmental constraints were not placed on the Permanent Way Branch as they were on the Construction Branch. It continued to use skillion roofed buildings, Deane's 1892 design and even structures with extended rafters, such as at Culcairn in 1916, as in figure 273. Moreover, the Permanent Way Branch used overhead booking offices for the quadruplication between Waratah and Maitland in 1914, as at Waratah in figure 61 and High Street in figure 129. At East Maitland, three separate buildings served the main line and Morpeth branch. In all of these instances, engineers provided facilities for staff to issue tickets from the off-platform facilities while on platform accommodation existed for station masters. Clearly, engineers felt no need to centralise and minimise staff despite the pleas of railway commissioners for wage restraint. Since the separation of the Existing Lines Branch from the Construction Branch in 1876, architecture policies of the two Branches differed. Whereas the Construction Branch had consistently implemented a policy of standardisation, the Existing Lines Branch, renamed the Permanent Way Branch in about 1908, tended towards inconsistency in respect of both materials and design utilisation. The Edwardian period was no exception. On the one hand, the Permanent Way Branch tended towards economy

through the removal of embellishments on brick structures, such as elimination of moulding in plinth courses on the structures erected with the duplication between Penrith and Lithgow, as in figure 274. It also used timber for the erection of many buildings for the duplication of the southern line, as at Goondah in figure 275, and for the duplication of the northern line as at Fassifern in figure 276. It also transferred buildings from one location to another, such as the removal of the first structure at Lakemba to Wallendbeen in 1916. On the other hand, the Branch indiscriminately used brick for some duplication work, as at Bowral in figure 277, but not at other locations such as Mittagong shown in figure 278. These two stations were adjoining yet the designs and materials were different. The same situation applied on the northern line with the duplication structures at the adjoining stations of Ourimbah and Tuggerah being also of different architecture and materials. Not only did the engineers of the Permanent Way Branch use brick for the gable roof design, but they went further on occasions. At Wollongong, Wyong, Gunnedah and Narrabri, they modified the existing design into a larger, more impressive structure as shown in figure 260 of Gunnedah. There was no pattern to the use of materials or designs.

16.2 THE POSITION IN 1916

Hutchinson had standardised designs by basically using one design which involved gabled roof structures. At some locations, he did not use any awning as at Humula in figure 270 but at others he did, as at Moorlands in figure 279. He also used the latter version for large structures such as at Toronto in figure 280. In addition, the Permanent Way Branch on occasions added rooms and enlarged awnings to existing timber structures, such as at Punchbowl, in figure 281, rather than erect a new structure. The Permanent Way Branch never used Hutchinson's awningless gabled roof type but utilised the 1892 awning version and also continued to use the skillion roof design, as at Mittagong in figure 278.

The trend to standardisation was obvious for buildings on new lines but the position was confused with the work of the Permanent Way Branch. It must be remembered that this Branch had to provide many new structures for the
quadruplication work on all lines radiating from Sydney. The most significant aspect of the trend to standardisation and economy is the inability to relate this in any way with capital funds allocations to the railways administration. It would seem that it was up to engineers to take initiatives that would ensure the completion of Government works programmes with the funds available. Engineers apparently chose station architecture as one area in which to economise, though this was a voluntary decision made seemingly in the absence of official requests.

The environment for the reconstruction of buildings was different to those pertaining to the construction of structures on new lines. For whatever reason a replacement structure was required, engineers of the Permanent Way Branch would have had regard to community expectation of a larger, more modern and more impressive building than the original structure. It was largely for this reason that the Branch continued to use brick and to change designs on occasions. More particularly, engineers had to build replacement structures at established urban locations, the nature and size of which were generally different to the locations in which new lines were being constructed. The difference in architecture is partially a difference in environmental conditions. This and nothing else seems to explain the irregular adoption of designs and materials for the various duplication works.

Despite the use of less expensive designs and materials, it should not be considered that the overall architectural theme was to provide the basest of station buildings. Notwithstanding the frugality, engineers continued to provide high level platforms in all instances; they never used corrugated iron for exterior wall of the main platform buildings and even on the smallest structures they usually provided some ornamentation, such as the ornate timber work above the entrance to general waiting rooms shown at Culgoora in figure 282.

Whilst engineers during the Edwardian period did make buildings plainer in appearance, they only did so to the extent which they considered they could implement economy without raising the ire of users. The absence of community, press and other criticism about architecture suggests that engineers correctly assessed the expectations of residents, travellers in the various locations. From a user perspective, the buildings were largely functional but the floor plans and
arrangement of some structures limited the efficiency with which operations could be undertaken. This was the case with Deane's 1915 awningless gable design and the structures erected in conjunction with the quadruplication of the Waratah-Maitland line.

By 1916, it was evident that the policy of using compact, sectionalised, "portable" timber structures was economical on the grounds that it was not a costly or involved matter to provide additional rooms. The attempt to place three rooms within a space of about 30 feet, as Deane had tried, was a response to the policy which commenced in the early 1890s to align building size more closely with actual traffic patterns, rather than a response to anticipated trends and Deane's 1915 design was oriented to that goal.

The macro function of buildings had changed. Deane had approved a structure for rural areas but, more particularly, at locations where the freight traffic would be more important than passenger business. The absence of separate accommodation for waiting passengers and the absence of heating and platform shelter for them point to this.

The nature and large number of environmental changes that occurred late in the Edwardian period suggested that further changes were yet to come. The introduction of the concept of "portability", the signing of Deane's plan for the awningless gable roof structure by the Director General of Public Works, the espousal of the Labor Party policy of State production of railway materials, the implementation of the agreement with Norton Griffiths and the establishment of a separate Metropolitan Railway Construction Branch in the Department of Public Works, all of which occurred within the last four years of the Edwardian period, pointed to a complex and changing political, economic and social environment. At the end of the Edwardian period this complex environment was still volatile.
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FIGURE 250 - OOLONG

FIGURE 251 - RAVENSWORTH
FIGURE 263 STRATHFIELD
FIGURE 264 - STRATHFIELD

FIGURE 265 - SYDNEY
FIGURE 278 - MITTAGONG

FIGURE 279 - MOORLAND