

TROLLEY WIRE

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AUSTRALIAN TRANSPORT MUSEUMS

NUMBER 163

APRIL 1976



— THE GEELONG TRAMWAYS —

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MUSEUM DIRECTORY

Now that the format of this magazine has been altered, we will be able to include the *MUSEUM DIRECTORY* on a more regular basis. In deference to the wishes of several of the member groups, the earlier page tabulation will be dispensed with and in its place we will allocate 40 column millimetres (1½") to each group in addition to the 'Notes and News' headings to advertise the museum.

These advertisements will be pre-printed, so it is imperative that any changes to the previously published details be forwarded to the Editors *immediately*.

COTMA - CONFERENCE '76

The South Pacific Electric Railway Co-operative Society is pleased to advise that it has been chosen to host the First Conference of the Council of Tramway Museums of Australasia, to be held in Sydney over the period 30th April - 3rd May 1976.

It is expected that we will welcome about 40 delegates from interstate and New Zealand.

The conference will commence with an opening luncheon at noon on Friday 30th. The

afternoon will be occupied with formal speeches and an introduction to the philosophy of the conference - *Museum Motivations* - including the museums' own ideas on the theme.

The evening has been set aside for an informal programme detailing progress since April 1975.

Saturday morning and early afternoon is devoted to the more practical aspects of running the tramways, to be followed by a formal visit to the Sydney Tramway Museum. A bar-be-que and night time tram rides concludes this day.

Sunday morning is in part a return to the philosophy of the conference with a paper of the conference title to be given by Dr. J.C. Radcliffe, Interim Chairman of COTMA. The afternoon is set aside for a visit to the Steam Tram Preservation Society activity in Parramatta Park.

The conference concludes on the Monday with a luncheon which follows the last guest speaker and the first Annual Report of COTMA. The afternoon will be set aside for informal inspection at Loftus depot and tram riding for those delegates lucky enough to be able to stay over in Sydney.

Accommodation and transport will be arranged as required for interstate and overseas visitors. The venue for the conference will be Jannali which is at one corner of the Sutherland Shire; accommodation has also been arranged at Sylvania, a short distance away. The Sydney Tramway Museum is, of course, also on the edge of the shire and is to be moved shortly a little closer to the seat of government.

The Convenor, David Rawlings, the Board of Directors and members of the Society join to wish all those who attend the Conference an enjoyable and useful visit to Sydney.

FRONT COVER: Car 3 of the original Geelong Tramways fleet operating on a Beach shuttle, shortly before the system closed in 1956.

-Noel Reed

THE GEELONG TRAMWAYS

by KEITH KINGS

The month of March 1976 saw the twentieth anniversary of the closing of the electric tramways in Geelong. The author produced an article, entitled 'Farewell to Geelong', in the March and April 1956 issues of 'Electric Traction', and another in the January 1966 issue of 'Running Journal'. This commemorative article introduces some additional information to that published previously, but does not claim to be a detailed account of the system, let alone a full document on the subject.

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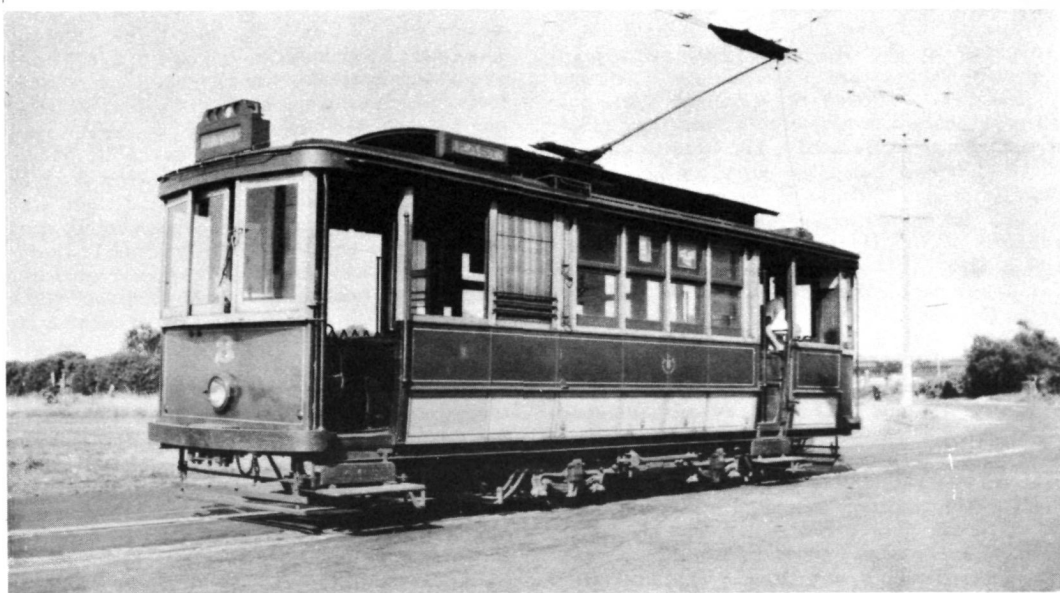
The citizens of Geelong initiated moves in the late 1880's to have their city served by tramways, but history was to prove that they would have to wait a quarter century for such an amenity. At that time, affluent Melbourne, the political, commercial and industrial capital of Victoria, was constructing its expensive and magnificent cable tramway system, while brash Ballarat and Bendigo, rich from gold and growing provincial centres, were finalising arrangements for local tramways. But Geelong was lacking in such spectacular items, and it was to be many years before it would out-pace its two inland sisters and become Victoria's second city.

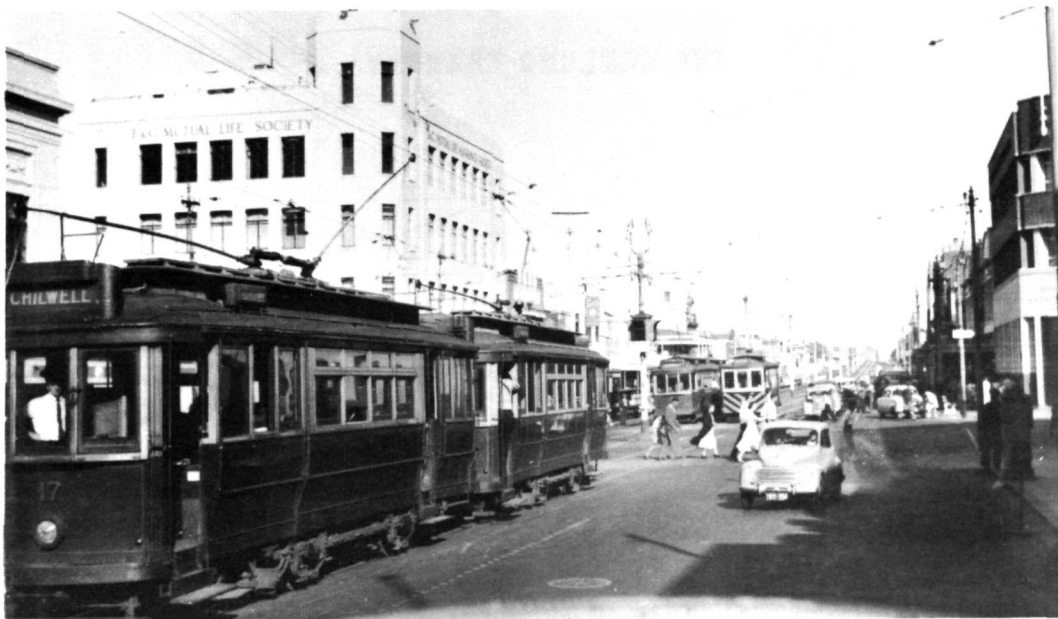
Local moves were made in June 1888 to found an electric light and tramway company, which would include the local horse bus com-

pany. Two companies evolved, and in September a Tramway Conference of the local Municipal Councils decided to call tenders for such operations. One tender was received from another group, but the matter appears to have faded into obscurity. The next year the Union Electric Company actually surveyed and pegged out routes and made an offer. An Order was published in the Gazette in August, but the great financial depression caused the matter to lapse.

Three groups applied for concessions in 1898. Subsequently, the Electric Lighting and Traction Company of Australia Limited was floated in London, and land was purchased at the corner of Corio Terrace and Yarra Street. The foundation stone for a power house and office block was laid on 30th March 1900 and the first street poles were erected on 4th June. The production and distribution of electricity commenced on 3rd May 1901, with Geelong's streets being lit by electricity later in the year. Approaches were made to the Company in 1904 for it to build electric tramways, but there was considerable hesitation as it claimed that overseas advice was that a minimum population

BELOW: No. 8, in old SEC colours, at the East terminus in February 1951.





of 50,000 people was needed for such operation, whereas Geelong's population was only 25,000.

The Company signed a preliminary agreement on 27th January 1907 with the Town of Geelong, the Boroughs of Newtown and Chilwell and Geelong West, and the Shire of South Barwon, to build electric tramways in their areas. The application to the Government for the necessary Powers and Orders was delayed as the existing regulations under the Act were mainly designed for cable tramways. The principle agreement was eventually signed on 27th July 1908, with variations in 1909 and 1910. The year 1908 also saw the company change its name to the Melbourne Electric Supply Company Limited.

The year 1909 saw the Company publish a 29 page booklet in favour of it installing electric tramways in Geelong. This was to combat a local press campaign with an anti-tram/pro-bus theme. Details of the routes and conditions of construction and operation were gazetted on 10th November 1909, and the Councils delegated these powers to the Company on 1st December. Work commenced in 1911 to build the tracks, depot and cars. The tracks consisted of 90 pound per yard British Standard grooved rail laid on concrete stringers. This type of construction proved troublesome within a few years, and was replaced with sleeper construction. Steel poles supported the overhead wires in the city area with wooden poles elsewhere. The trolley wire was of the figure eight style, and was supplied with 550 volts DC from the power house. A car shed was built adjacent to the power house but only the two eastern tracks were laid. The Adelaide,

Ryrie Street looking east at Moorabool Street, City. A busy scene late Saturday after the cinema matinees had finished, January 1956. Cars visible are:- Nos. 17, 18, 23, 3 and 5.

South Australia firm of Duncan and Fraser received orders for seven motorised open California combination type single truck trams and four open cross bench single truck trailer cars. These vehicles were built in Adelaide and assembled at the depot on the space immediately west of the two shed roads. They were numbered 1 to 7 and 1 to 4, respectively. The motor trams were originally fitted with small destination boxes at the front of their roofs, magnetic track brakes, tip over seats in the saloons and link and pin couplers. They had a simple style lining out with double shadows and were embellished with a complex monogram. Messrs Duncan and Fraser also built three motor bus bodies — of similar style to the saloon portions of the tramcar bodies — on Milnes-Daimler chassis. They were numbered 1 to 3 and consumed Pratt's Benzine which was supplied in four gallon tins necessitating much man-handling of stock for storage and refuelling.

Construction work had reached an advanced stage early in 1912, and Thursday 14th March was designated as the day on which the opening ceremonies would be held. The official parties gathered at the Depot and, after speeches, boarded trams for the procession over the routes. Four cars had been decorated for the occasion: the Geelong City car had a white motif, the Newtown and Chilwell car was pale

blue and green, the Geelong West car red and white, while the Company car was green and gold. The four trams left the Depot at 2.40 pm and ran along Corio Terrace and turned left into Moorabool Street, where a halt was made at the Queen's Statue. The first ribbon cutting ceremony — with more speeches — took place and the Mayor of Geelong officially gave the trams permission to enter the City. The central area of Geelong was bedecked with bunting and other decorations and many businesses and schools had closed for the occasion. Consequently large crowds lined the tram tracks and an almost festive mood prevailed. After turning right into Ryrie Street, the procession ran into Aberdeen Street where the passing loop was utilised to manoeuvre the Newtown and Chilwell car into the leading position. A few yards after turning left into Pakington Street another ribbon cutting ceremony was held, with speeches, as permission was received for the cars to enter Newtown and Chilwell territory. Arriving at the Newtown terminus, the Geelong West car was placed in the lead, and the convoy headed for the West terminus. At Aberdeen Street the final ribbon cutting ceremony and speeches took place before the procession ran to the West Geelong terminus. Here the Geelong car took the leading position for the return journey to the city, which was reached at 3.45 pm. The trams were made available to the general public at 6.00 pm, and 7,000 passengers were carried until 11.00 pm. This figure, by coincidence, proved to be the daily average for passengers in the first few weeks of operation.

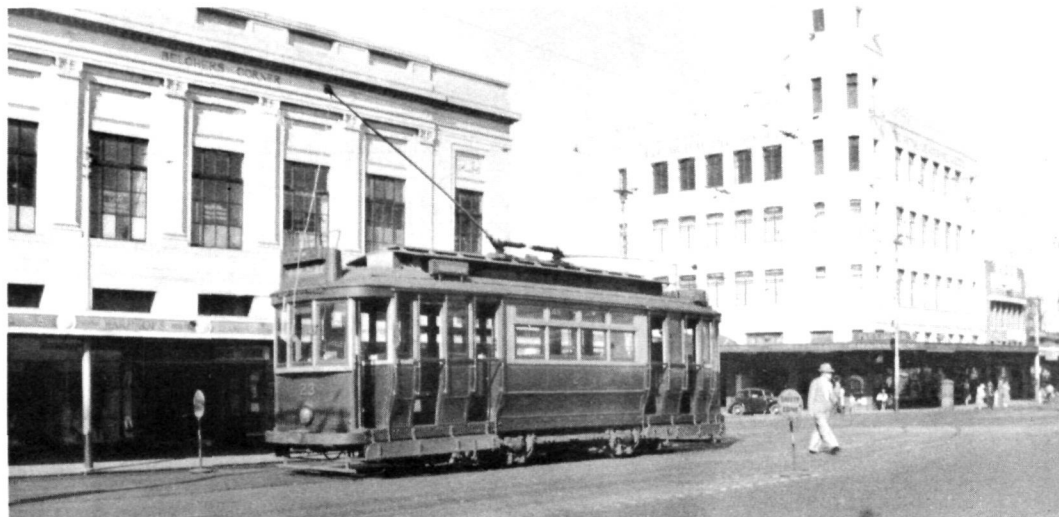
The fares charged were quite expensive — 3 pence to Newtown or West and 1½ pence to the Post Office. There is no mention of an official opening for the East Geelong bus route but service commenced the same day. A route to South Geelong, terminating at the Barwon River Bridge, was included in the original

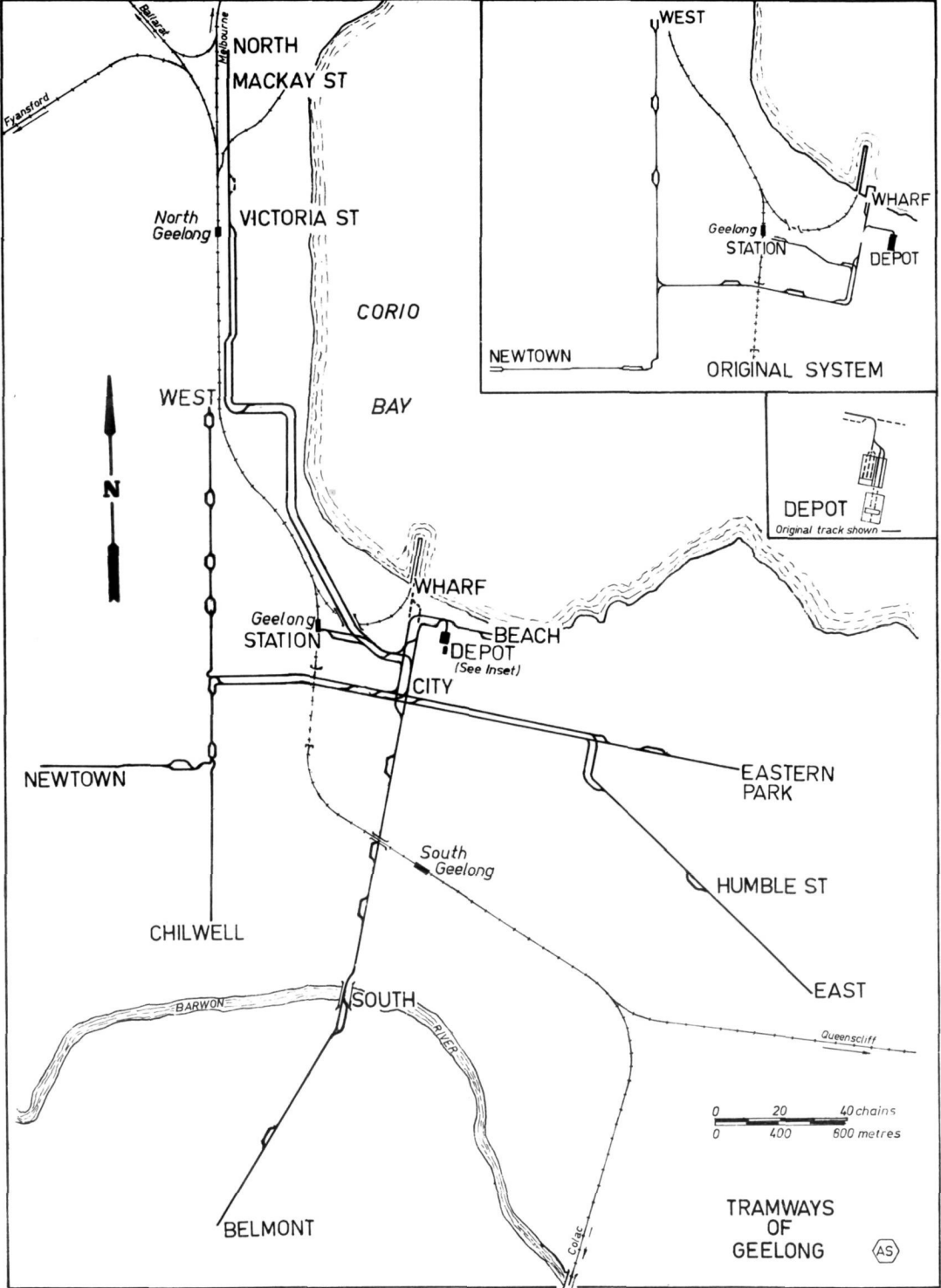
scheme, but construction was delayed because of the necessity to cross the main south west railway line. Agreement was eventually reached with the Victorian Railways whereby the Company contributed £15,000 towards the cost of elevating the railway onto embankments connected by an overbridge. The service was opened to Fyans Street, a little over 7/8 mile from the city, on Thursday, 11th December 1913. It was stated a few days later that the final ¼ mile to the river was complete and should be opened by Christmas. At this time it was announced that the Company planned to duplicate the single track sections from the City to the Railway Station and Wharf in 1914, as well as eliminating the awkward deviation via Retreat Road and Pleasant Street on the Newtown route. The Council bought a block of land to enable Aphrasia Street to be extended through to Pakington Street, and this co-ordinated work was put in hand in 1914. The asymmetrical loop was caused by the curvature into Pleasant Street, and remained so until the closure of the line.

The year 1915 saw the introduction of colour light route indicators, using a four aspect system in an annexe built on top of the destination boxes together with the decoration of six tram-cars for advertising purposes. No. 3 was one such car, its motif being 'Help Red Cross Funds'. Three more motored trams of identical style were received from Duncan and Fraser, and assembled at the Depot, being given Nos. 8 to 10.

Although early publicity had favoured the four trailer cars, it would appear that they could have proved cumbersome in operation, as Nos. 1 and 4 were motorised and renumbered 11 and 12 during 1913 and 1914. These rolling stock

BELOW: No. 23 in unconverted condition in Ryrie Street at Moorabool Street, City, in January 1955.





changes caused roads 3 and 4 to be laid at the Depot, while Railway Terrace (adjacent to the Station) was duplicated in 1916. During this wartime period, No. 12 was decorated in a patriotic theme and periodically toured all routes for recruiting purposes with the City Band rendering appropriate numbers.

There appears to have been a slight lull in developments in the late 1910's — which is quite understandable — but it is quite noticeable that there is a marked general difference in the history of the Geelong tramways during their first 25 years as compared with the undertakings in Ballarat and Bendigo during the same period. Whereas Ballarat and Bendigo electrified their tramways fairly early — 1905 and 1903 — with little or no development ensuing until the 1930's, Geelong's electric tramways were installed fairly late in the period. However, there was something happening or about to happen at Geelong in most years until 1936. These points are not only interesting, they were of vital importance in later years.

New generating plant was installed at the power house during the 1920 to 1922 period, and plans made to replace the East Geelong motor buses with electric trams.

This event took place on Thursday 12th October 1922 when the trams took up operation to Garden Street. The buses were withdrawn at 4.00 pm.

The chassis were retained for use and the bodies sold. The solid rubber tyres and poor roads had caused the bodies to be heavily braced, and it is reported that, when the braces were removed to enable the bodies to be separated from the chassis, the bodies collapsed.

Thursday 25th January 1923 saw the trams reach Humble Street, with the line to Boundary Road opening on Thursday 1st March, including the loop at Humble Street. The Company stated that it intended to proceed with the duplication of Ryrie Street, from Moorabool Street to Latrobe Terrace, as soon as work on the East line was completed.

This new route, together with future plans, required additional tramcars and facilities. During 1923-24, No. 5 road at the Depot was laid and a new workshop built at the rear of the property, on the south side of Corio Street. Depot roads 1 and 2 were extended rear-wards across the street into the new building, which was divided into two sections — the first portion was the general workshop and at least twice the size of the second section, which was the paint shop. The track in the latter was placed in a central position and was entered through a centrally placed doorway in the dividing brick wall. The transition from the double track to the central single track was via a short traverser designed to take long wheel base single truck cars only. This design was to cause an intriguing problem 24 years later.

The Company imported two 'Birney' type tramcars from the J. G. Brill Company of Phila-

delphia, U.S.A. in 1924 in C.K.D. condition, and they were assembled at the depot in 1924. This decision was contemporary with that of the Melbourne & Metropolitan Tramways Board, who imported two such cars in the same year, and the Municipal Tramways Trust, Adelaide who received four of these cars in 1925. They were of a dramatically different design to the existing cars in Geelong (and elsewhere in Australia), being an enclosed saloon of steel construction, light weight design using small motors, and fitted with safety features especially for one-man operation.

They were used on the South route, which was apparently a shuttle service from the main city intersection. They were numbered 14 and 15.

The next order for rolling stock was for eight cars from the Adelaide firm of Pengelley and Company, and their design and construction was in complete contradistinction to that of the Birney cars. They were large, heavy, wooden combination cars with clerestory roofs, riding on Brill *Radiax* trucks, with large heavy motors providing power. They were numbered 16 to 23, and entered service during 1924-25.

A 5/8 mile extension along Pakington Street from Aphrasia Street to Fyans Street, Chilwell, was opened with ceremony and speeches on Friday 30th September 1927, with one of the Pengelley cars in the role of the official tram. The initial portion of the line descends a steep hill and it has been reported that a passing loop existed at the bottom of this hill. It is also reported that the interesting junction arrangement was installed to alleviate collisions from north-bound Chilwell cars cresting the grade and east-bound Newtown cars turning from the narrow Aphrasia Street, as the corner in question had poor visibility.

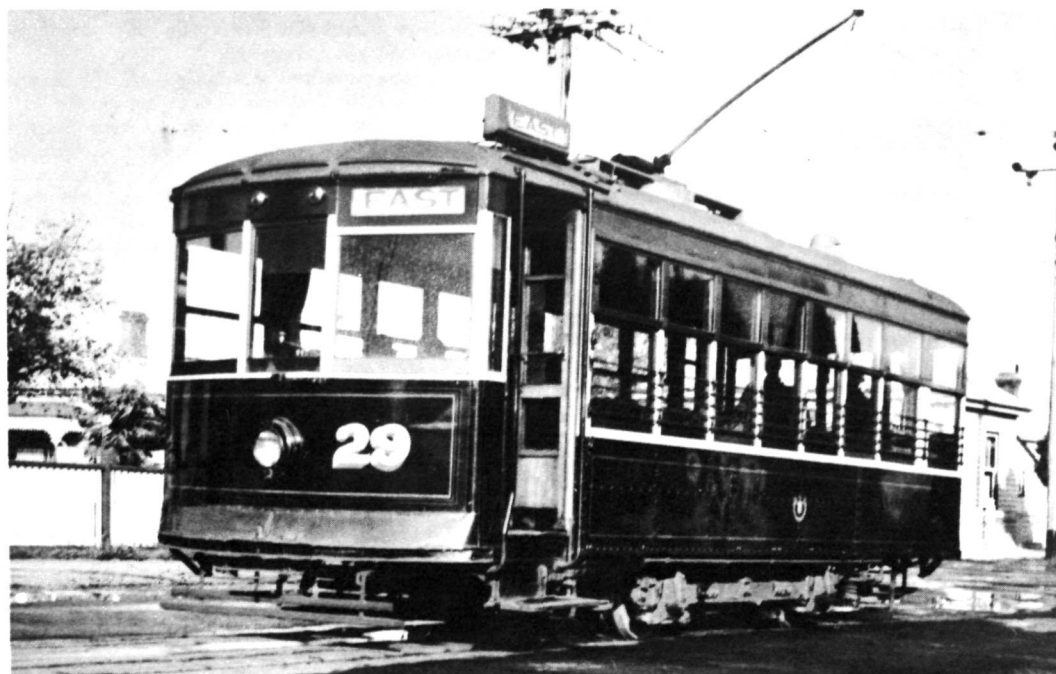
The long awaited extension of the South route across the Barwon River and up the hill to Belmont drew a step closer on 18th August 1926, when a new bridge was built to replace the old structure. The 1.2 mile extension was opened with ceremony, speeches and a decorated tram (No. 23) on Friday 16th December 1927. A petition from South Geelong residents requested that the two regular Birney car drivers be retained on the route, but the Company regretted that this would not be possible. It commented that these two cars would be used for special work on all routes and on occasions when express trips were necessary. (This comment suggests to the author that the Company had in mind using the Birneys to combat 'jitney' operation by private motor buses along the tram routes.)

March 1928 saw the purchase from the Melbourne & Metropolitan Tramways Board of seven single truck open combination tramcars, which had become surplus to requirements. They had been built for the Prahran and Malvern Tramways Trust in the latter half of 1915 and now received Nos. 24 to 30 on the Geelong roster.



ABOVE: Geelong (3rd) 28, formerly No. 25, in the depot yard in August 1955.

BELOW: Birney car No. 29 (ex Adelaide G class 302) at the Chilwell terminus in June 1939.
—late Wal Jack photo



The new route to North Geelong was opened in three stages. It branched off the Station line near its terminus, and was ready as far as Bell Parade on Friday 6th July 1928. A tram carrying Company officials left the city at 3.00 pm, but there was no ceremony or speeches. It was stated that all the materials were on hand, and that work on the extension to Separation Street would start as soon as road widening works were completed. The short extension from Bell Parade to Victoria Street was opened with ceremony and a decorated tram on Friday 14th June 1929. It was slightly over $\frac{1}{4}$ mile long, was single track and had been built in little over a month. The whole line would be double track to Victoria Street and then single to Separation Street, it was stated. The final $\frac{3}{4}$ mile extension was built quickly when the road works were finished, and it too, was opened in style, with ceremony and a decorated tram on Friday 20th December 1929.

Meanwhile, cross bench trailer cars Nos. 2 and 3 had been withdrawn and scrapped, probably about 1925, followed by cross bench motor cars Nos. 11 and 12, *circa* 1928. Strangely, one open cross bench trailer car was purchased from Melbourne, probably in 1928, placed on the truck from No. 11, fitted with a 950 gallon water tank and used for track cleaning. The Geelong Tramways thus entered the 1930's with 27 single truck passenger cars. In April 1929 the Company duplicated the line in Aberdeen Street, using revised road levels. The old track was relaid to suit. The size of the tram fleet was again causing concern in relation to depot space and the use of Corio Terrace for shunting movements, and it was decided to build a loop line in that thoroughfare to hold several trams. The cars for the next morning plus the track cleaner would be placed on it during the evening, while the trams in service would be run into the depot for servicing. This work was completed in May 1929.

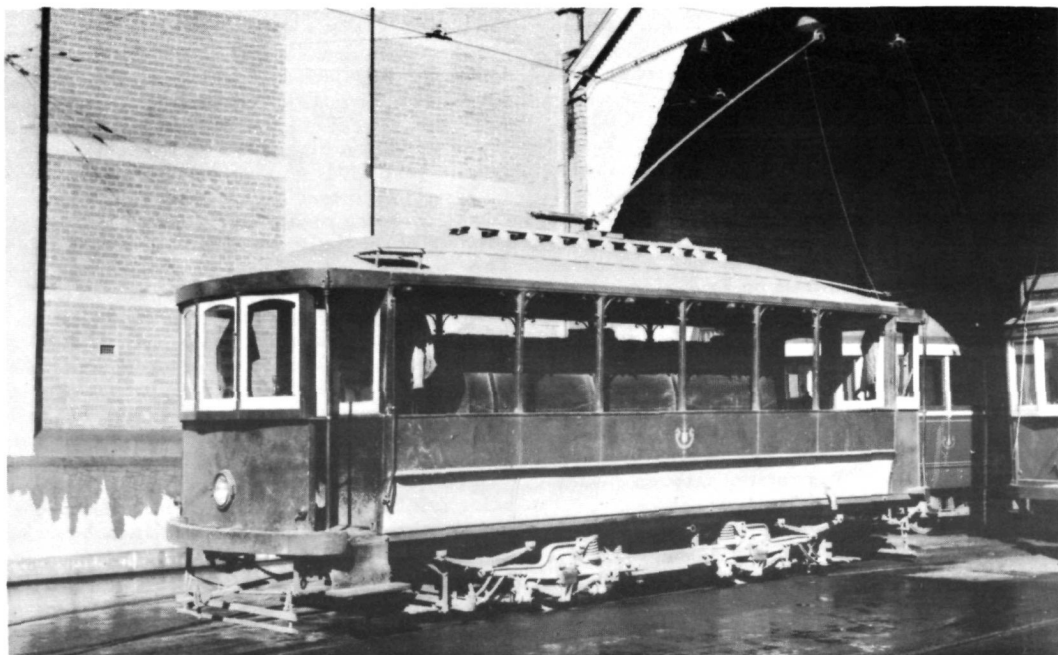
The State Electricity Commission of Victoria was constituted to generate and supply electricity throughout Victoria. It was vested with power to acquire any existing electricity companies, and acted thus in the late 1920's in regard to the Melbourne Electric Supply Company Limited (and the Electric Supply Company of Victoria Limited, which operated the electricity supply plants and tramways at Ballarat and Bendigo). A conference was held with the local councils at Geelong on 6th June 1929 and it was decided that the councils would ask the State Government to legislate to give the SEC power to operate tramways. Neither the Commission or the councils wanted to acquire the tramways, but the SEC reluctantly agreed to do so under the circumstances. As the Company's concession terminated on 31st August 1930, the Commission assumed control on the next day, in the terms of the Act of Parliament passed in December 1929 (which also allowed the SEC to operate trolley buses and motor buses). The

Act allowed the Commission to permit motor bus operation near its tram routes. Council By Laws and Regulations were amended in accordance with the Motor Omnibus Act 1928, in 1930 and with SEC concurrence, motor buses began operating over prescribed routes in Geelong in June 1931.

The change-over period saw another short extension being rushed to completion, with the building of the $\frac{1}{2}$ mile Eastern Park branch line. This was opened (without ceremony) from the first car early on Wednesday morning 10th September 1930. It served Corio Oval and the adjoining golf course and rifle range as well as local housing. The overhead crew was still completing the wiring on the long loop (suitable for storing several trams for return football traffic), and it was expected to be ready for use three days hence for a main game at the oval.

The economic depression was obviously being felt by the undertakings' finances as the introduction of one-man operated tramcars was discussed and decided upon during 1931. It is reported that trams Nos. 2 to 10 and 24 to 30 were altered to facilitate this practice during 1931-32, and that operations began about the end of 1931. The matter was raised at a meeting of the Geelong Trades Hall Council on 12th January 1932 and a deputation was sent to the Minister for Railways and Electrical Undertakings. The outcome was inconclusive, so it was resolved to call a conference of representatives from the local Municipal Councils. This conference did not eventuate as no Council would agree to become involved in the matter. Initially, six men were put off, with more to follow as additional routes were changed over. It was claimed in the press that services had been slowed, safety was in jeopardy, and revenue down. Apparently the design of the cars was not good, because a modified tram entered service on the North route on 17th March 1932. The initial design provided for only a front door, which proved bad in heavy loading periods, as boarding passengers had to wait until alighting passengers cleared the car, even at times when a conductor was on board. The modification called for the provision of a second doorway each side behind the saloon, and immediately proved successful. Two such trams were running on the North to Belmont route on Saturday 19th March 1932, and were claimed a success by the local press. It was hoped to have twelve such converted cars in operation within two months. Presumably the two Birney cars would have been available for one-man use (as they were used in such a manner previously). Nos. 1 and 2 are reported to have been converted in 1935, with Nos. 16 to 19 following in 1939. Nos. 20 to 23 remained unaltered.

An interesting transfer of rolling stock took place during 1935-36. The Municipal Tramways Trust, Adelaide had operated its four Birney type trams on the isolated Port Adelaide sys-



The Geelong track cleaner car.

tem until the routes were closed on 27th July 1935. The cars remained out of use until bought by the SEC who railed them to Geelong, where they were numbered (2nd) 27 to 30. The ex-Melbourne cars which originally carried these Geelong numbers were transferred to Ballarat where they saw many years further service. The four 'new' trams went into use at Geelong during 1936, but, unlike Nos. 14 and 15, they had only one centrally mounted trolley pole and base. The two original cars were converted by 1937 to one pole each, but it is interesting to note that the large Pengelley-built trams were modified from one to two poles about this period. The four cars from Adelaide differed from Nos. 14 and 15 in several minor features but the most noticeable was the seating — transverse (with a centre aisle), with reversible backs, as against longitudinal, and with no bulkheads behind the motorman.

Passenger traffic between Geelong and Melbourne has been met by rail, road and ship over the years, and the tramways served both the railway station and the wharf from their inception. The steamer service to and from Melbourne had been fairly frequent, reasonably fast and quite reliable in early years, but competition from the railways, and later bus and private cars as the main highway was improved, gradually caused the steamers to be withdrawn, until the last service ceased in 1938. The wharf service thus became partly redundant and a suggestion was made at a meeting of the Council of the Geelong Chamber of Commerce and Manufacturers that the lines and equipment between Corio Terrace and the Wharf should be removed and used eastwards along Corio Ter-

race from the Depot to Bellarine Street. This new line would serve the Eastern Beach area which was then being developed for recreation and bathing. The SEC agreed and the work was carried out, apparently fairly early in 1940. It would thus appear that service to the Wharf would have ceased about the end of 1939. The new line remained unused for some time, but was commissioned on Saturday 19th October 1940, with the approach of the summer weather. The Inspector on duty directed trams from Newtown and West to the Beach as required, and was able to run an additional car from the city if necessary.

The commencement of World War II caused petrol rationing to be introduced into Australia on 1st October 1940. The immediate effect on the Geelong tramways was a noticeable increase in the sale of weekly tickets, and a steady increase in passengers. Some 3,500,000 passengers were being carried annually, and this increased by about 1,000,000 per year until about 6,500,000 passengers per annum had been reached. The war also caused a shortage of men, and conductresses were introduced. It is believed that a maximum of 28 were employed at one period. An improved timetable came into operation on Monday 10th November 1941 with additional cars rostered. It is interesting to note that the West route received a ten minute service on Sunday afternoons with twelve minute headways on the North to Belmont lines. The press also reported that tram No. 7, one of the original cars, had run the greatest mileage

up to 31st October, with 784,922 miles to its credit. It was also one of the cars recently renovated. This work included fitting upholstered saloon seats (Dunlopillo rubber covered with leather), removal of the floor slats and substitution of Lastroleum, the chrome plating of all interior metal fittings and a complete repainting and varnishing of the car. Later in the month it was stated that straps for use by standing passengers were being fitted to the end platforms of the trams.

About the end of the War, the SEC was able to arrange to purchase additional surplus tramcars from Melbourne. They were of the maximum traction bogie type and were somewhat larger than the existing single truck cars in use at that time. They had two saloons separated by a drop centre section, with dropped platforms at each end of the car. As part of an overall three-system plan, Geelong's six Birney cars were to be sent to Bendigo to replace 1903-built cars in that city, and Geelong would receive six bogie cars from Melbourne. The Birneys departed between 1947 and 1949, and the bogie cars arrived in 1947-48. Subsequently, four more were bought for Geelong in 1951. These ten trams became Nos. 31 to 40. The Geelong tramcar fleet had thus reached its maximum of 31 cars.

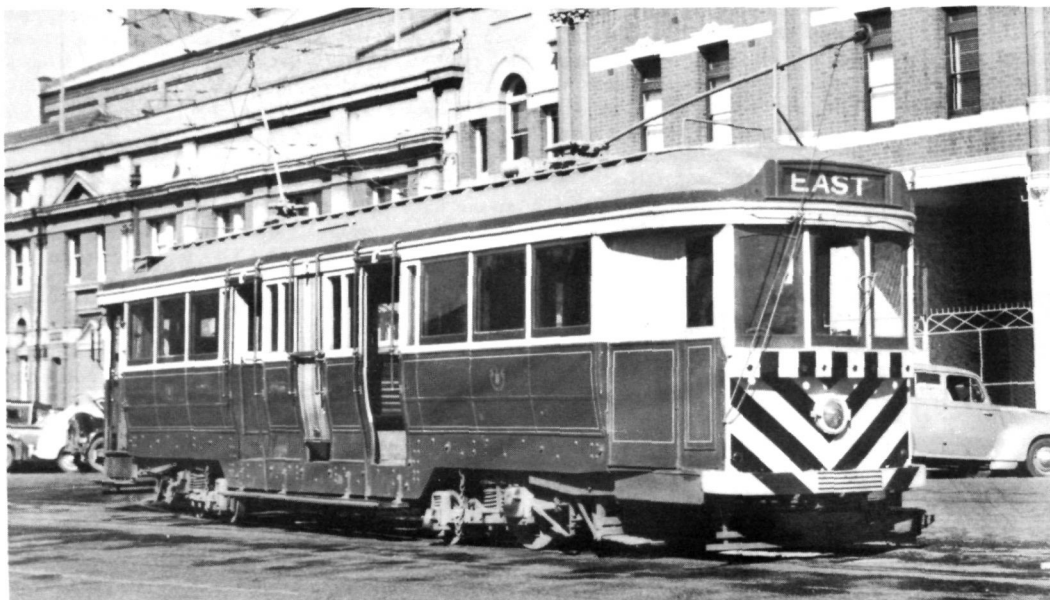
Apart from the trackwork mentioned, some minor changes were made over the years. The central loop was added to the West route and the Shannon Street loop on the North route was removed. The loop at the Newtown/Chilwell junction was added at an unknown date, possibly to facilitate crossing cars in conjunction with a new timetable. The direct connection along Pakington Street (from West to Newtown) was removed at an unknown date. Commencing with

some 3¼ miles of route, the system grew to nearly 12 miles in 1930.

When the SEC acquired the three provincial city tramways in the early 1930's, Geelong was in very good condition, whereas Ballarat and Bendigo were relatively poor. The latter two received considerable reconditioning of track and overhead, as well as replacement of rolling stock. After the War, the position was reversed, with Geelong in the poorest state, although by no means in a bad condition. In 1949, Mr. H.H. Bell, Jnr, of the Melbourne & Metropolitan Tramways Board, was asked to investigate and report upon the Geelong tramways as regards their condition, how they related to their task, and to make recommendations for their future. His report, in brief, recommended that the trams be replaced by diesel buses, that the whole of the existing bus routes be re-cast, and that, if the SEC did not want to operate the replacement services, the task should be transferred to another authority. He also felt that a suburban rail service should be operated between north and south Geelong. There was both support for and opposition to these proposals, but the matter soon lapsed. In February 1951, the South Barwon Shire Council advocated the replacement of the Belmont route with trolley buses, but no more was heard of this plan.

The appearance of the bogie cars in 1947 had two interesting effects on the local system. One was in the workshop – how to get a bogie car, with an overall long wheel base, from the workshop into the paintshop via the small trav-

BELOW: No. 37, with zebra stripes on dashes and canopy lighting; in Corio Terrace, outside the depot in August 1955.



er built to take single truck cars. The solution was remarkably simple — one bogie at a time. Luckily, the angle of the body to the bogies was such that the corner of the car just cleared the edge of the doorway. The other matter was the lack of coloured destination route indicators on the bogie cars. It was soon found that passengers were not inconvenienced at all, resulting in the removal of these boxes from all other cars except Nos. 23 to 26. The four colours — red, white, blue and green — thus passed into history. Subsequent to two accidents, No. 25 was renumbered 28 in 1951, so as to remove any feeling that it was a 'hoodoo' car from the public mind. Rising costs and falling revenue and passenger figures caused the SEC to convert one bogie car for one-man operation in 1953. No. 39 was duly altered, but the Employees Union refused to operate the car as such, and the matter ended in a stalemate with all bogie cars continuing to run as two-man cars. The problem of head-on collisions with motor vehicles on single track sections caused the SEC to fit red marker lights in the lower outside corners of the dashes during 1951. The toll continued, and further precautions were put in hand during the second quarter of 1955. The dashes were painted in alternate yellow and black stripes, a canopy fitted under the overhang of the windshield, and several globes fitted behind the canopy for night illumination of the dash. The project was cancelled late in 1955 after Nos. 4, 31 to 35 and 37 had been fully equipped. No. 5 received painted dashes only.

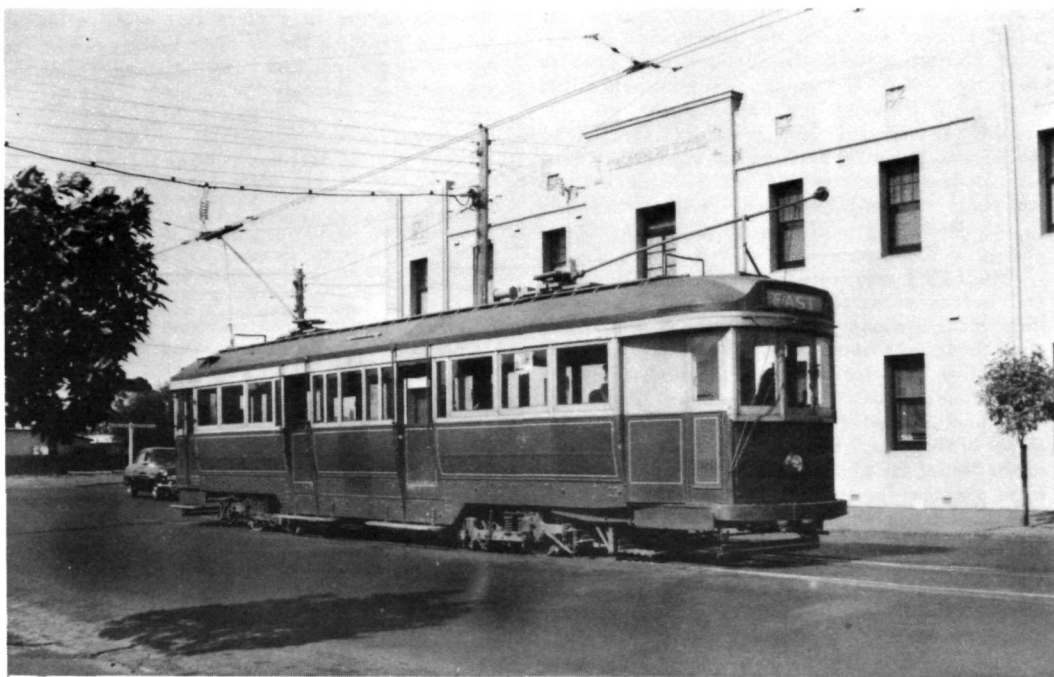
Through-routing of services had been practised for many years. Before and after World War II, cars ran as follows:— Newtown to City; West to City; Chilwell to East; Eastern Park to City; Belmont to North. Newtown and West cars ran to the Railway or Wharf (later Beach) as required. About the end of 1952, amendments were made as follows:— Chilwell to Beach or Railway Station; East to West; Newtown to Eastern Park; North to Belmont. Short working cars were timetabled as follows:— East — Humble Street (the far end of the loop); North — Victoria Street; North — Mackay Street (one stop short of the terminus); Belmont — South Geelong at the railway bridge. Most single track sections were protected by colour light signals operated by the trolley wheel passing through a contactor on the overhead trolley wire. These lights were probably fitted in the 1930's. Details of the coloured route indicator lights are:— Newtown — green; West — red; East — blue; Chilwell — green and blue; Belmont — white; North — red and white; Eastern Park — blue and white.

During the latter part of 1953 the tram/bus controversy and the future of the Geelong system was again brought to the forefront. The State Government commissioned the Transport Regulation Board (which licenses bus routes

and truck operators in Victoria) to enquire into the future of public transport at Geelong. The Board held public hearings at Geelong at the end of October and received evidence from various groups interested in the matter. The Board's report and recommendations were made public one year later, at the beginning of November 1954. Briefly, it advocated closure of the tramways, re-arrangement of all routes and operation by a public authority rather than private enterprise of the new bus system. About six months later the Government announced that it had decided to close the tramways and substitute motor buses, but that they would be operated by private companies. Public protest meetings were held and a petition containing over 16,000 signatures quickly raised, but to no avail. The Government refused to change its decision and details of closures and new bus routes were announced on 9th December 1955. Abandonment was to commence early in 1956 and be complete before the end of March.

The final runs were to be spread over four days. All 'last trams' were to run on the time-tabled schedule for the last trip on Sunday nights, with motor buses commencing the next morning. The through route from East to West ceased on 8th January, together with the Chilwell line. Last trams were Nos. 18, 7 and 1 respectively. No. 1 also ran the last regular trip from Beach, which was then served on an 'as required' basis until early March. No. 33 ran to the Beach terminus on Saturday 24th March as a special, for a private trip. The Eastern Park and Newtown routes closed on 22nd January, the last cars being Nos. 19 and 18 resp. The first closures were very quiet affairs, with a handful of people present. The second pair of routes ceased with very little extra public interest. The third closure, the North route, on 3rd March, drew quite a crowd of people, mainly young men and women from a teachers college. There was plenty of noise and hilarity as No. 6 ran the last trip, but no problems regarding behavior.

The final closure was the Belmont route on 23rd March. This line had operated as a shuttle to the City using the facing crossover in Moorabool Street, near Malop Street, and running to the Station as required. The last tram from the railway was No. 18 on Friday 23rd March. Nos. 17 and 18 provided the afternoon service on the last day, but were changed over early in the evening for bogie cars Nos. 31 and 38, to facilitate the expected 'last ride' by local residents. These two bogie cars were selected as they were to be scrapped, whereas the other eight were scheduled for transfer to Ballarat and Bendigo for further use. In effect, it did not really matter if the public started the scrapping — and they did! The last trip was a rowdy, tumultuous event. No. 4, claimed to have been the 'first tram' in Geelong just over 44 years previously, was decorated for the occasion and



No. 39, as converted for one-man service but never used as such, at the West terminus in January 1955.

BELOW: Pakington Street at Aphrasia Street, looking south from the passing loop. No. 37, ex Chilwell is swinging out before entering the loop. The Newtown line turns right. Note the trolley wire arrangement.



became the official 'last tram'. It carried the official party and lead the procession to Belmont so that it would be the last tram back to the city. No.31, the second last scheduled tram from Belmont, returned to the city as quickly as possible and followed No.38 (and No.4) out again. The crowd wanting to ride was so large that the SEC officials decided to add No.33 to the procession, and it was driven by the Shed-hand on duty with the Inspector-in-charge as Conductor.

The four trams were followed by police cars and scores of motor cars with horns blaring as they moved along the route which was lined with thousands of people. The return trip was very slow, and included ceremonies, speeches and presentations to the Belmont Councillor who had opened the route in 1927, and the Mayor of Geelong. The cars eventually returned to the depot for the last time and electric tramway service in the Geelong urban area had ended. All the single truck cars were scrapped and the bodies sold. The appropriate spare parts together with some equipment, track and overhead materials were sent to Ballarat and Bendigo, and helped keep these two electric tramways operating for many more years.

And so the last to be built (of the three provincial city electric tramways in Victoria) was the first to close. Geelong, whose late construction enabled it to benefit from the experience of its predecessors and the advances made in the electric traction industry, lasted one (tramway) life span. Relatively little track renewal was carried out, and there was, in effect, no replacement of rolling stock. True, 'new' trams came from Melbourne, but they were of a contemporary age and construction of the basic Geelong fleet, and had received corresponding useage. The Geelong tramways were by no means 'at their last gasp'; many tramways

have been run in a far worse state. But the circumstances of the day prevailed against continued operation, and 'The Geelong Tramways' passed into history.

Footnote:

Quite a deal of data has reached the author or has been located by him since his last article on this subject ten years ago. It indicates that a considerable amount of systematic research is still needed to give a reasonably clear picture of the history of the Geelong tramways. Readers will have noticed many qualifications in the foregoing text, as it is considered essential to so label points that are still in doubt. At the closure, No.4 was decorated as the "Last Tram", because it was said to have been the "First Tram". It is also reported to have been the tram decorated as the "West Geelong" car. As such, it must have been the third (or fourth) car in the procession from the Depot. It is now known that the "City" car was first; possibly the "Newtown" car was second; contemporary newspaper reports do not mention whereabouts the "Company" car was placed. It would thus appear that the "City" car was the "First Tram", but its number is not known. This, and other, rolling stock problems could possibly be solved if the Tramcar Record Cards could be located. They were promised to the Australian Electric Traction Association, Melbourne, by the Depot Foreman, when he had finished with them. Some weeks after closure he entrusted them to a visitor (believed to have been from Sydney) to take to Melbourne - but they were never delivered. It is to be hoped that one day they will complete their journey, and so become available for proper research, enabling current mysteries to be solved, and contributing towards an authoritative narration of the history of "The Geelong Tramways".

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The author gratefully acknowledges assistance received in the preparation of this article from a number of people. Information has been received from Messrs. M. White, D. Irvin and the late Messrs. W. Jack, C.R.G. Field and V. Phipps, as well as SEC official records, selected issues of the "Geelong Advertiser", and the author's own files. The map was kindly drawn by Mr. A. Strempel. Illustrations used are by the author.



Aberdeen Street, looking east at Pakington Street. No. 38 is running 'bang road' to turn on

to the West route; No. 16 is following but will turn left to Chilwell.

Car Nos.	Body Builder	Date Built	Trucks (w/b)	Motors (h.p.)	Seats	Length	Disposal	Previous	Notes	Converted to 1-man Date	Seats
1-7	Duncan & Fraser	1912	Brush (8' 0")	2 x 45	36	31' 0"	Scrapped 1956	...	(13)	1931-35	30
8-10	"	1915	Brush (8' 0")	2 x 45	36	31' 0"	Scrapped 1956	...	...	1931-32	30
trailers 1-4	"	1912	?	...	40	?	Note (8)	...	...	...	...
11, 12	"	...	Brush	2 x 45	40	?	Scrapped 1928 (?)	Trailers	...	...	...
(13)	"	Note (3)	Brush (8' 0")	2 x 45	...	27' 0"	Scrapped 1956	Note (3)	...	...	...
14, 15	Brill	1924	Brill (8' 0")	2 x 25	30	28' 0"	to Bendigo 1949 & 1948	...	...	...	...
16-23	Pengelley	1925	Brill (10' 0")	2 x 55	38	35' 0"	Scrapped 1956	...	(11)	(16-19) in 1939	32
24-30	Meadowbank	1915	Brill (6' 6")	2 x 45	36	31' 0"	Note (1)	Note (4)	(2)	1931-32	32
27-30	Brill	1925	Brill (8' 0")	2 x 25	32	28' 0"	to Bendigo 1947	Note (5)	...	...	...
31-35	Duncan & Fraser	1916	Brill (4' 0")	2 x 65	44	44' 4½"	Note (9)	Note (6)	(13)	...	...
36-40	"	1913-4	Brill (4' 0")	2 x 65	44	44' 3½"	Note (10)	Note (7)	(12, 13)	No. 39 in 1953	40

NOTES:

- Nos. 27-30 to Ballarat in 1935-36. Nos. 24, 26, 28 scrapped 1956
- No. 25 renumbered 28 in 1951.
- Built 1906 by Duncan & Fraser as a trailer for the North Melbourne Electric Tramway and Lighting Co. Ltd. Acquired by Melbourne & Metropolitan Tramways Board on 1st August 1922. Sold to Geelong, possibly 1928. Un-numbered, but regarded as No. 13.
- Ex M.&M.T.B. J class Nos. 67, 66, 64, 71, 65, 75 and 68 respectively.
- Ex Metropolitan Tramways Trust, Adelaide, G class Nos. 303, 304, 302 and 301 respectively.
- Ex M.&M.T.B. N class Nos. 118, 122, 120, 126 and 119 resp.
- Ex M.&M.T.B. C class No. 26, and E class Nos. 38, 37, 39 and 40 resp.
- Nos. 1 and 4 to Nos. 11 and 12 in 1913-14. Nos. 2 and 3 scrapped about 1925
- No. 31 scrapped 1956. Nos. 32 to 35 became Bendigo Nos. 3, 4, 2 and 1 respectively
- No. 38 scrapped 1956. Nos. 36, 37, 39 and 40 became Bendigo No. 5 and Ballarat Nos. 42, 41 and 43 resp.
- Body of No. 22 subsequently purchased by The Tramway Museum Society of Victoria Ltd. for restoration.
- No. 40 presented to the Apex Club of Barwon when the Ballarat Tramways closed in 1971. It is now displayed in Queen's Park, Geelong.
- 'Zebra' striped dashes and canopy lighting fitted in 1955 to Nos. 4, 31 to 35 and 37. No. 5 had its dashes only painted.

Duncan & Fraser were an Adelaide firm.

Brill - J.G. Brill & Co., Philadelphia, U.S.A.

Pengelley - A. Pengelley & Co., Adelaide

Meadowbank - Meadowbank Manufacturing Co., Sydney

Brush - Brush Engineering Co., U.K.

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All correspondence to *Trolley Wire* concerning subscriptions to the magazine should include mention of the subscription number which appears in the address plate print above the subscriber's name. It makes the locating of the subscriber's file so much easier and therefore leads to prompter action.

Change of Address: All non-member (private) subscribers must, of course, notify *Trolley Wire* of change of address. Member subscribers however, while not obliged to do so, *must* advise their own Society Secretary of address

change. This information will then be forwarded to T.W. and the mailing lists amended.

We are still receiving correspondence which while intended for the Editorial Committee in general, is addressed to a particular person; this leads to delay in the material reaching the appropriate officer. *Please* direct all such correspondence to The Editors, at the address shown on page 2.



50 YEARS OF ELECTRIFICATION

The Sydney Suburban & Interurban Railway Network

by Laurence Gordon

On Monday 1st March 1926, a six car electric train entered service between Oatley, on the Illawarra line, and Sydney Terminal Station. Only one electric train was initially in use; the steam service continued much as before. From this inauspicious start grew the network of today, covering the suburban passenger lines, some metropolitan freight lines and with tentacles reaching 50 miles north to Gosford and 98 miles west to Bowenfels.

RAILWAY DEVELOPMENT IN SYDNEY

The decision to electrify was possibly the most far reaching taken by the N.S.W. railways since the track gauge was settled at 4' 8½", yet it was only incidental.

The Sydney to Parramatta railway was opened on 26th September 1855 from a terminal on the southern side of Devonshire Street, over 1½ miles distant from Circular Quay. Almost immediately proposals were put forward to extend the line into the city proper and thus began the procrastination and indecision which still marks railway development today. The Pitt Street horse tramway which operated from 1861 to 1866 provided a short term substitute, but its demise brought the desirability, or necess-

ity, of extending the railway into question again. By 1865 the lines had been extended to Penrith, Richmond and Picton and more construction was under way. Whilst these lines were to be part of a state wide system intended to aid the opening up of the country, there was, nevertheless, a reasonable amount of local traffic. Most of the population of Sydney, however, lived around the shores of the harbour and in the eastern suburbs and the proposals to extend the railway into the city were linked with the construction of lines to serve these areas.

The decision to stage an International Exhibition in the Gardens in Macquarie Street required some action, which turned out to be a 'temporary' steam tramway, opened in 1879. This was quickly expanded to cover the railway-less eastern and inner western and southern suburbs and thus the railway into the city was deferred.

ABOVE: A special 6 car electric train at Sydney station after arrival from Oatley on 28th February 1976. The cars were specially lined with yellow tape to resemble the 1926 style. The leading car, C3102 is, however, incorrect.

Procrastination and indecision notwithstanding, relief was urgently needed from the intolerable operating conditions which had developed on the Devonshire Street station site.

The present (3rd*) Sydney station, just to the north of Devonshire Street, was opened in 1906 and settled the matter as far as main line traffic was concerned, but space was provided on the eastern side of the site for an extension into the city for the suburban trains. By this date the railway network had been considerably expanded and suburban passenger traffic was becoming unmanageable with a terminal layout, even the magnificent new one. Most of this traffic originated on the inner ends of the main lines. Only two purely suburban lines had been built; from Hornsby down the steep northern slopes of the harbour to a waterside station at Milsons Point and from Sydenham, on the Illawarra line, west to Bankstown.

Serious consideration was now given to a city railway with a connection over or under the harbour to Milsons Point and for lines to the eastern suburbs and to Balmain and Drum-moyne in the west. One scheme for these later lines was for small profile trains on an independent system after the style of the London tube railways. Favourable consideration was given to an elevated line along the western side of the business district with a bridge over the harbour as the nucleus of the city system. This line would have been steam worked. However, the scheme eventually adopted combined both elevated and underground lines to form a double track loop around the city with a separate connection over the harbour to the North Shore line and lines to the eastern, southern and western suburbs. Thus with considerable underground sections, some with steep grades, electrification had become essential.

CONSTRUCTION AND CONVERSION WORK

The system of electrification adopted was 1500 volts DC, supplied by overhead wires with pantograph collection. This was also used in Melbourne and it is believed that it had been adopted as the Australian standard as it was suitable for the extensive mainline electrification that was considered a possibility. (The original report, in 1908, by Charles Merz, Consulting Engineer of London, on the electric operation of the Melbourne suburban railway network, recommended an 800 volt DC protected 3rd rail system.)

The adoption of an overhead supply system necessitated alterations to, or the rebuilding of many bridges and other structures to provide adequate vertical clearance. A loading gauge of 10' 6" was also adopted for the suburban electric cars instead of the N.S.W. standard of

9' 8" and this entailed major alteration to the structure gauge. Track centres were increased from 11' 1½" and 11' 3" to 12' 0" (on tangents) and bridge abutments, retaining walls and platform faces cut back. Some additional tracks had been constructed and signalling modernised on the busier lines prior to the general commencement of the main electrification works. The North Shore and Bankstown lines were the first available for use by the wide stock and a series of passenger cars introduced in 1921, built to the 10' 6" loading gauge, and designed for ultimate conversion to electric operation were used in steam service on these lines.

Since the opening of the new Sydney station in 1906 the suburban network has been expanded by the construction of a new line south west from Lidcombe to Regents Park in 1912 and subsequently to Cabramatta on the southern line near Liverpool in 1924. The Bankstown line was extended to Regents Park in 1928 and thus by a roundabout route was connected to Liverpool, the original goal of this line. There were also a number of other small branch lines and the extensive system of freight lines known as the Metropolitan Freight Lines. Only the main passenger lines were to be converted in the initial scheme, as set out hereunder:-

Line	No. of tracks	M.	ch	Note
Sydney - Hurstville	4	9	18	
Hurstville - Loftus	2	7	09	(1)
Loftus - National Park	1	1	26	
Sydenham - Bankstown	2	8	26	
Sydney - Lidcombe	4	10	24	
Lidcombe - Parramatta	2	4	09	
Lidcombe - Cabramatta	2	7	30	
Clyde - Rose Hill	2	1	06	(2)
Granville - Liverpool	2	8	70	
Warwick Farm Racecourse Junc. - Warwick Farm Racecourse	1		72	(3)
Strathfield - Hornsby	2	13	60	
Hornsby - Waverton	2	11	71	(4)

NOTES;

1. Gauntlet track over Georges River Bridge at Como.
2. Racecourse traffic only. Trains from Clyde to Sandown and Carlingford were still steam hauled
3. Trains only operated for race meetings.
4. Electrification extended from Waverton to the original Milsons Point station.

Suburban area lines not included in the conversion programme were:

Sutherland - Woronora Cemetery
 Lidcombe - Rookwood Cemetery (No. 4 Mortuary)
 Bankstown - Regents Park
 Rose Hill - Carlingford, services operated from Clyde
 Camellia - Sandown
 Liverpool - Moorebank - Anzac Rifle Range
 Westmead - Rogans Hill - service operated from Parramatta

* The station replaced in 1906 was considered to be the second Sydney station although it had evolved from, rather than replaced, the 1855 station.

The following new lines were constructed in the city and across the harbour to join the North



Shore line at Waverton:

Line	No. of tracks	M. ch
Redfern - Central	8	65
Central - St. James - Circular Quay - Wynyard - Central	2	3 57
Central - Town Hall (HL) - Wynyard (HL) - Milsons Point (new) - North Sydney - Waverton	2	3 66

The section from Redfern to Central is entirely above ground and includes extensive flying junctions. Four new island platforms were constructed at Sydney for the city lines. These are at a slightly higher level than those in the terminal station. Old platforms 16 to 19 were demolished to allow the new platforms to be built. The numbers continue from 16 to 23 but the new ones are known as 'Central'. Six tracks continue above ground for a short distance before entering the tunnels at Goulburn Street. Most of the underground lines are in single tunnels; only those from the western portal at Circular Quay to Wynyard low level on the City Circle are in double track tunnel. The Goulburn Street to St. James section and a portion of the line between Goulburn Street and Town Hall were constructed by open cut methods as were the four underground stations. The remainder of the tunnels were cut by conventional tunnelling methods. Circular Quay station is on a short elevated structure. This section was not completed until 1956.

The dominant feature of these new works was the Sydney Harbour Bridge. From the

The new Sydney station, although opened in 1906 was far from complete. In 1920 the finishing touches were being given to the clock tower. The electric platforms were constructed on the left hand side of the main building.

—NSW Government Printer

original concept of merely taking a connection for the North Shore line across the harbour it developed into a major structure carrying four railway lines, a six lane roadway and two footways. From Goulburn Street portal the North Shore tracks pass through the high level platforms at Town Hall and Wynyard before emerging at Argyle Street to cross the bridge. The new Milsons Point station is on the northern bridge approach structure. From here the line descends to meet the rising ground and North Sydney station is in a cutting which abutts a tunnel through which the line passes before joining with the original Milsons Point line at Waverton.

Provision was made when these works were being undertaken to incorporate certain sections of the other proposed lines. Two extra platforms were provided at Town Hall for a western suburbs line which would have connected at St. James with an eastern suburbs line for which the platforms and some tunnels were built. Four high level platforms were built at Wynyard and the tunnels and tracks completed to North Sydney. Four platforms were also provided at Milsons Point and North Sydney where a fly-

over was constructed in the tunnel for a connection to the Manly and Warringah area. The extra two platforms at Wynyard and the tracks across the Harbour Bridge to Milsons Point were used by trams until 1958 when they were converted for use as a parking station and two extra road lanes respectively.

A new workshop to service the electric trains was constructed in the railway workshops area at Chullora and was connected to Chullora Junction by a short branch line. It is usually known by its code name of 'Elcar'. Depots were constructed at Mortdale, Punchbowl, Hornsby and Flemington. Storage sidings were provided at:

Prince Alfred (adjacent to Central flyovers)	
Rockdale	Hurstville
Sutherland	National Park
Canterbury Racecourse	
North Strathfield	Warwick Farm Racecourse
Liverpool	

North Sydney (old Milsons Point station)
Those at National Park were only used for weekend tourist traffic and have since been removed. The two racecourse sidings are only used during race meetings. Those at North Strathfield, Rockdale and Hurstville are not normally used by electric trains. It was also intended to wire the old car cleaning sheds at Homebush, but this was not carried out, probably due to lack of headroom. The line from Waverton to the old station at Milsons Point was singled when the site was converted for train storage.

....to be continued

HERE and THERE

A Brief Note

We hear, from the Tasmanian Transport Museum Society, based in Hobart, that their major tramway exhibit, Hobart bogie saloon car No. 141 operated under its own power on 1st March. We expect to be able to offer further details of this, and other activities of the group who are establishing a museum complex at Glenorchy, some miles out of Hobart.

ROCKHAMPTON

It is with pleasure that we announce that the '18-35 Group' of the (Rockhampton Branch) National Trust of Queensland has adopted as a major project the collection of the few remaining tramway relics and the possible reconstruction of a steam motor unit. Eventual operation of such a tram along a short length of track is the ultimate aim of this group, and already initial steps are underway; the collection of the remains of car 3 at the Seonee Park scouts' camp.

Sydney Harbour Bridge nearing completion. This view looks south west from Kirribilli. A portal structure for supporting the overhead wires can be seen to the right of the northern pylons. The tracks on this side of the bridge were used by trams.



COTMA

Notes & News

Expert Panel

The Expert Panel on Tramcar Acquisition and Spare Parts has circulated all tramway museums in Australasia with a questionnaire which seeks to establish an information basis upon which the Panel can commence its endeavours to serve member museums. The information being sought concerns the policies and objectives of each museum and data on the tramcars owned or controlled by them.

The replies, when collated, will assist the Panel to establish an initial inventory and provide the Panel with the information which will be necessary when COTMA is co-ordinating and representing member museums in their applications for tramcars and parts from transport authorities and from each other.

Conference - Ballarat 1975

The Proceedings of this First Conference of Australian Tramway Museums have been published and circulated to all those people who attended. Complimentary copies have been sent to the various transport authorities with whom COTMA is in contact. Published as a *Trolley Wire Special* in A4 size, the Proceedings are a rather handsome publication of some 78 pages containing reprints of all 7 Papers presented and details of the findings of the various Workshop Sessions (a Workshop being a small group of delegates discussing a specialist topic). Since the document details the formation of COTMA, it is destined to be of historic value in years to come.

The Papers include:-

Financing the Railway/Tramway Operating Museum, - WYMOND, A.P., President, Puffing Billy Preservation Society.

A History of Experience (the story of the South Pacific Electric Railway), - KAHN, Peter, Chairman of Directors, S.P.E.R.

Accounting Methods Suitable for Museum Operations, - BREYDON, Graeme, Finance Director, T.M.S.V.

Tramcar Maintenance - Museum Style, - PRENTICE, Bob, B.T.P.S. and Bendigo Trust. *Buses - Their Preservation and Relevance to Tramway Museums*, - RADCLIFFE, Dr. J.C., President, A.E.T.M.

The Formation of an Association of Tramway Museums of Australasia, - RAWLINGS, David, General Manager, S.P.E.R.

Museum Publications, - STAMFORD, Frank, Light Railway Research Society of Australia.

For any readers who are interested, copies of the Proceedings are available at \$5 each,

postage included, by writing direct to the Executive Officer, COTMA, 51 Lenna Street, East Burwood, Victoria, 3151. (\$A5.50 to New Zealand.) Make remittances payable to the Ballarat Tramway Preservation Society and mark 'not negotiable'. If you are able to collect or arrange collection by hand then the cost is only \$4.

Our thanks go to Bill Denham and the SPER Publishing Department for the varotyping and artwork, to the Museum of Applied Arts and Sciences, Sydney and the Deputy Director, Mr. H.H.G. McKern, for the printing, and to David Rawlings of the SPER for the transport to COTMA headquarters. The general typing was done by the Taren Point Typing Service.

CONFERENCE - SYDNEY 1976.

Final plans are being drawn up for this year's Conference to be held in Sydney, 30th April to 3rd May, with the S.P.E.R. as hosts. This will be the first official Australasian conference and the first to be held under the auspices of COTMA. Further information will be found elsewhere in this issue of *Trolley Wire*. See you there.

Archives and Library

The Melbourne and Metropolitan Tramways Board has recently found need to displace from storage much interesting archival material. At the suggestion of and with the assistance of their officer, Mr. David Menzies, this material has now become the property of COTMA.

All that material which is directly relevant to individual museums is being transferred to them, whilst particularly priceless (to us) matter and general technical items are being retained by the Executive Officer. It is the intention of COTMA to develop a library of this material, to catalogue same, and to issue copies of this catalogue to member museums so that material can be loaned under a proper borrowing system. Our thanks to the M.&M.T.B. for their consideration and thoughtfulness.

-Bill Kingsley, Executive Officer, COTMA



TRAMWAY MODELLING

We have been asked to include details in this magazine of tramway items which would be of interest to tramway modellers, in particular, details of trolley bases and wheels and overhead fittings - those items which cannot be successfully measured from the ground.

The Editors are sympathetic to this idea and are co-opting the services of personnel to prepare the necessary material for publication. The first items should appear later this year.

* MUSEUM Notes & News *

from ST. KILDA

Australian Electric Transport Museum



Car 192, driven by Robert Magnussen, is seen making one of its test runs to St. Kilda following completion of recent electrical work.

—John Radcliffe

Trolley Bus Shed Completed

The structure of the new trolley bus shed was completed recently with the hanging of the sliding doors at each end of the building. Formwork has been constructed for pouring the dwarf concrete walls around the base of the building.

Crossing Block Delivered

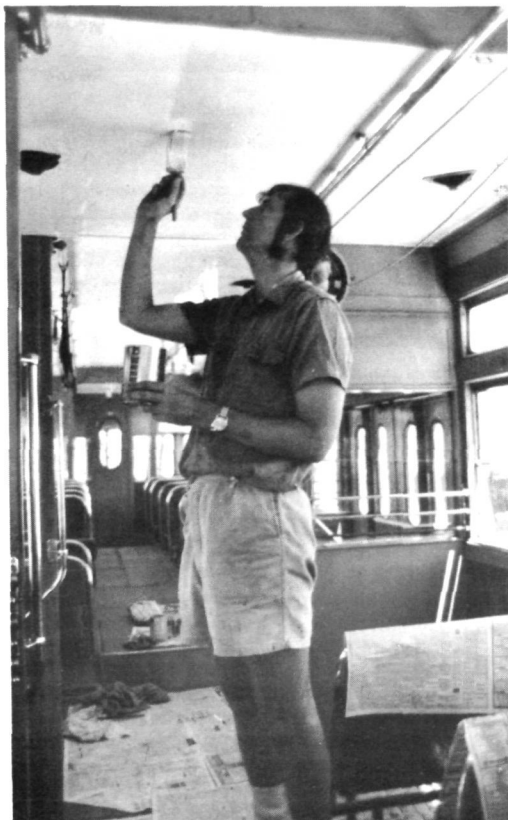
The final crossing has been delivered to complete the depot fan. Although the switches were installed some time ago, purchase of the crossing for road 2 was delayed as an economy measure. This road houses car No. 42 which is on static display and two trolley buses. In view of the ultimate transfer of the trolley buses to the new shed, it will be possible to bring the remaining track into use by the trams.

Car News

Following their lining and varnishing by Chris Andrews, the sliding doors are being progressively reinstalled in the crossbench end

of car 192. John Pennack has commenced restoration of the closed saloon end of the car.

A team composed of John Radcliffe, Warren Burt and Graeme Kaines has commenced the refurbishment of car 381. Much of the ivory ceiling has already been repainted, while the Ashbury green interior is being progressively cleaned for refinishing and chromed fittings are being repolished. As far as practicable, the car will be kept in traffic during the refurbishment programme.



John Radcliffe, repainting the ceiling of car 381; the distant saloon has already been refinished.



Tram Stop Beacons Obtained

Three illuminated glass tram stop beacons were recently purchased at nominal cost by the Museum. These beacons graced numerous tram stops in the metropolitan area for years, but were removed in 1956. A number were recently found to have survived in a suburban shed, a proposal to grow tomatoes in them having not come to fruition.

Gift of Resistance Boxes

The Museum was recently given several dozen tramway resistance boxes of various types by Mr. Jack South of Clarence Park. Mr. South had purchased them in 1958 for a project in which he had contemplated using second-hand D.C. tramway equipment. One box has already been installed in car 192 to increase the first notch resistance.

Tram Terminus Improvements

The Corporation of the City of Salisbury has recently carried out a number of improvements in the vicinity of the tram terminus. Gravel paths have been laid to and around the terminal waiting seat. A children's sand pit has been completed and additional filling has been added adjacent to the tram track. A new car park near the terminus is well patronised each Sunday.

Planning Committee

A planning committee has been established to consider the possible forms of development which the Museum might take over the next

Ron Jenkins and Chris Steele unloading one of the newly-acquired tram stop beacons. The new trolleybus shed can be seen at rear.

—John Radcliffe

twenty years. Members are Dr. John Radcliffe, (convenor), and Messrs John Pennack, Chris Steele, Chris Andrews and Mark Skinner.

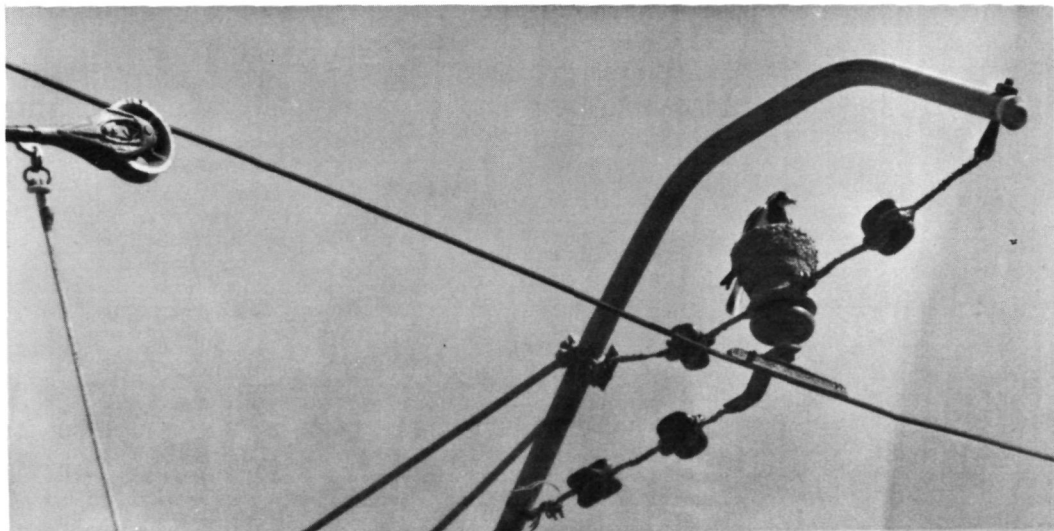
Theatre Organ Society Benefit Concert

A very successful and enjoyable benefit concert was performed for the Museum by the Theatre Organ Society at Wyatt Hall, South Terrace, Adelaide on 13th February 1976. The organist was Father Anthony Taylor. Members were pleasantly surprised to learn that the skills used in the restoration of Wurlitzer theatre organs, including metal and woodwork refinishing and the overhauling of electro-pneumatic control systems have much in common with the restoration of tramcars.

MEMBERS' DAY

The A.E.T.M. Members' Day will be held at St. Kilda on Saturday 29th May 1976.





This Murray magpie has reared her brood on the bracket arm hanger of pole 39 in Shell Street, St. Kilda, for two successive years.

—John Radcliffe

A few hardy individuals are working on privately owned bus restoration projects. AETM member Trevor Tate is seen working on former Adelaide AEC Regal Mark III No. 192 which he retrieved from Wollongong, N.S.W.

—John Radcliffe





The TMSV stand at the exhibition at Camberwell in March showing the model tramway and a rather well known identity in the foreground.

BELOW: The three eras of tramway uniform on display at the Camberwell AMRA Exhibition.



from BYLANDS

Tramway Museum Society of Victoria

A.M.R.A. Exhibition

The highlight of this issues' report is the Society's display stand at the Australian Model Railway Association's annual exhibition, held in the Camberwell Civic Centre over the Labour Day weekend, from Friday 5th to Monday 8th March. The AMRA Committee kindly invited us to contribute an item, and it was decided to use the impressive ½ inch to the foot model tramcars in conjunction with some display boards featuring Society activities. At our own exhibitions at Malvern and Kew in previous years we had to think and work hard to find enough interesting displays to fill a hall; now we had to pack as much of interest as we could into a space 32ft x 14ft! This feat was achieved by Tony Cooke building a new set of layout baseboards and Robert Green designing fresh displays. The new baseboards formed an L shaped design with overall measurements 24ft x 10ft, with each baseboard two feet wide. A typical tramway street was constructed along the 24ft side, complete with low relief houses and shops, centre poles with bracket arms, street furniture and scale figures. A single track terminus at one end opened out into double track, with the other end containing a two track terminus with trailing crossover. The 'unused' track at the latter end contained a trailing turnout which lead into a curve that turned into a four road depot, situated along the other side of the L shaped design of the baseboards.

The artistic skills with which Tony's wife, Leonie, is endowed, are well known to our members, and she put her talents to good effect in making the displays for the various shop windows. She also ingeniously produced 'cast iron' lattice work for some of the shop verandahs — crochet work!

Barry George loaned some suitably scaled models of trucks, which were parked at the kerbside, and an ancient bus was produced by Tony Cooke.

The tramcar fleet consisted of over 20 models of Australian and *Pacific Electric* cars, built and/or owned by several Society members. They were used to operate a continuous service throughout all the exhibition, and produced a very good performance. The cars were continually changed over with others from the depot throughout, so as to give a continually changing scene to the public. As more cars were available than depot capacity, periodical ex-

changes were made with the 'reserve'. The cars were operated at approximately scale speeds, halting at an intermediate stopping place.

Robert Green's displays included three of our 'dummies', four display boards and the restored bundy clock. One dummy was dressed in the old time uniform, one in a wartime conductresses uniform and the third in the new Z cars uniform, which Robert neatly labelled as 1915, 1945 and 1975, respectively. Three of the display boards carried large photographs of Society activities and work, while the fourth was used to hang two large photographs of cable tram trailers.

Ron Scholton operated the Sales Department from a table at the end of the stand, and covered it with books, slides, etc. Post cards were in the big rotating rack at the edge of the table. Ron and his helpers produced the very creditable figures of \$576 for the four days. Spot lights were provided by Graeme Breydon, and they really set the whole stand off to good advantage.

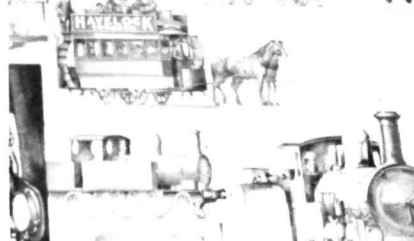
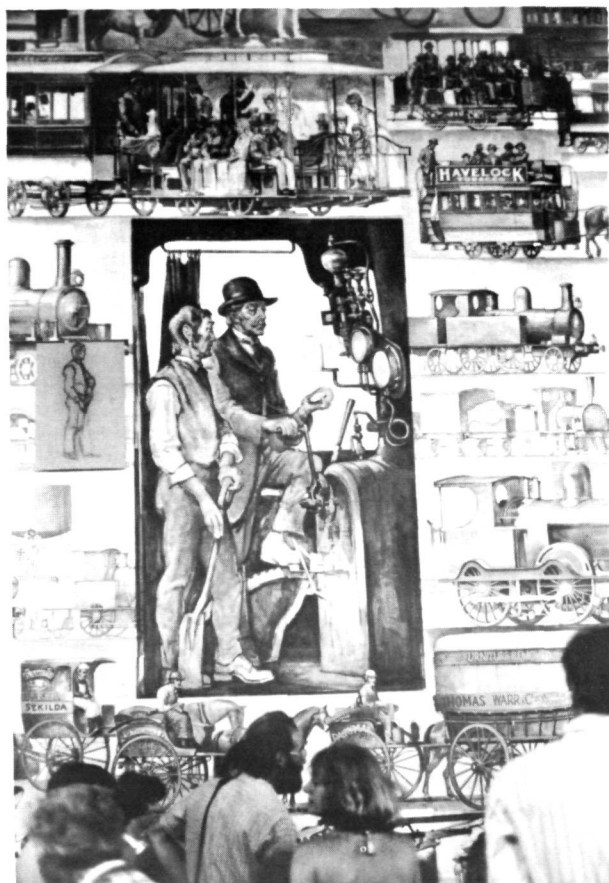
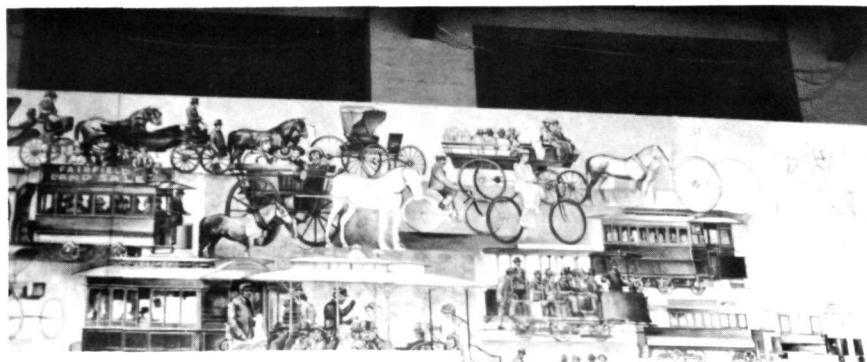
It is most pleasing to report that our stand 'stole the show'. We obtained the award for the best club display in the Exhibition, and also gained the highest number of points awarded in the competition held to ascertain the percentage return to the Society from the door takings. Points for the latter were awarded for presentation, reliability of operation, spectator approval, general interest and could be deducted for staff misdemeanours such as poor dress, misbehaving while on duty, eating or drinking at the stand, etc. It is to the considerable credit of our team that they backed Tony and Robert so well in all aspects of the display and that we therefore did so well. The Society's thanks go to all concerned.

The success of this stand, and the amount of interest shown by the public in the trams, has resulted in us already receiving an invitation to participate in next year's Exhibition. Over 20,000 people saw the Exhibition during the four days it was open and we handed out over 5,000 copies of the Society's new advertising-cum-membership brochure.

Bylands

'Charlie' continues to haul No. 256 as required along the mainline. To facilitate passengers boarding the car, a loading platform has been





Three views of the transport mural being painted by Harold Freedman; part of a much larger work for the west concourse at Spencer Street station.

—Graeme Breydon



built opposite the south end of the depot, using a facing of sleepers with gravel built up to height for the necessary length and width. Several heavy duty shelves have been built along the west wall of the shed to receive spare parts from Malvern Depot and Cranbourne. We are still transporting materials stored in our Malvern cars for many years, and have recently had to clear the Cranbourne shed due to the property being sold. Our thanks for the use of this shed for several years go to John Rawnsley and his uncle.

Domestic wiring for the permanent electricity supply continues in the Shed, and a large flood light has been placed at the front of the building similar to the one already fitted to the south end. Further track work has resulted in some rail joints being packed and tightened, sleepers lifted and packed, the point box at the depot roads turnout being fitted and additional bolts placed in all joints inside the shed to bring them up to requirements. On the main line, between 'break of gauge' and the 'yard limit', the western rail has been de-spiked and moved over for re-gauging. The curved rails adjoining the frog in the railway turnout leading to the Gang Shed will be adjusted and the siding re-gauged for any useage that may arise.

Malvern Depot

Pleasing results are being achieved by the Wednesday night group on the cars at Malvern. As well as the never-ending cleaning necessary internal restoration of 180 has recommenced. Spare parts and other materials have been removed from 164 and 180, but more remains to be transported. A diversion was created shortly before the Camberwell Exhibition when the team helped prepare display boards and supports for our stand. Other members have been busy in the Rooms, sorting, filing, and working towards the day when we can centralise our library and archive material.

Third Honorary Life Member

At our Annual General Meeting in December, we were pleased to elect Mr. A.E. Twentyman to honorary life membership of the Society. This was bestowed upon Mr. Twentyman in recognition of his life-long interest in cable trams which has resulted in a most impressive collection of data on the rolling stock and method of operation of the system, as well as his preservation of one dummy and two trailer cars. Mr. Twentyman joined the Society in its early days and has contributed a number of articles to *Running Journal* and *Trolley Wire*. Society members – individually and as official groups – have visited 'Melbourne's cable tram headquarters' on many occasions over the years to talk and learn about the subject and to view and photograph the preserved cars. The bestowal of this honour is the least our Society can do for the man who single handed started

what our Society – and our contemporaries – is all about: tramcar preservation. For it was in 1930 that Mr. Twentyman purchased trailer No. 290, and thus set foot on the long and often hard road which we now all tread.

Public Relations

Robert Green and Clive Gibson teamed to provide a small display at the Collingwood Town Hall from 18th to 20th February in connection with the Centenary celebrations then being held by this municipality.

Corrigenda

This correspondent referred to the large scale model trams as one gauge in the February T.W. report. It has been pointed out that this is not quite correct. They are actually 1/24th scale, being 1/2 in. to one foot.

Transport Mural

Saturday afternoon, 14th February saw some 30 or so members and friends gather at the "studio" of State Artist Harold Freedman at East Camberwell, in the V.R.'s old sub-station building. We viewed the next two stages of the giant transport mural which he is painting for the west concourse at Spencer Street station. The first section was hung and officially unveiled some months ago, and he expects stage two to follow later this year. Harold's informal talk explained how the idea arose and what went into the preliminary planning, and described the method of design, layout and painting. This was then illustrated by a specially produced colour movie film. The immense size of the mural necessitates the use of mobile scaffolding to cover the length and height involved. We are indebted to a most interesting man for a fascinating afternoon 'behind the scenes'.

from PARRAMATTA

Steam Tram Preservation Society

Third Annual General Meeting

The Society's Third Annual General Meeting was held on 29th November 1975 (this meeting was in fact the 21st A.G.M. since our foundation in 1954). A change in the composition of the Board of Directors occurred with the retirement of Frank Moag, who did not seek re-election. Bruce Irwin was elected to the Board and subsequently to the position of Governing Director. Frank had served in the capacity of G.D. since our incorporation in 1972, and indeed for a long time prior to that date. Our thanks to Frank for his firm command of the Society's affairs. Now that the

Commander has a shore job he can join the other Ronnie in the task of evaporating water in the Vulcan.

Transfer of Exhibit

In 1968 the Society acquired a cable car trailer. As space prevented storage at Parramatta Park, the car was stored privately. During 1975, the Society was becoming concerned that such a valuable relic could not be adequately preserved, accepted the offer to transfer the trailer car to the SPER collection at Loftus.

A short history of this diminutive vehicle is as follows:-

Built in 1894 as a cable tram trailer. It is a small 16 seat vehicle which saw service on the King Street cable tramway system of Sydney. Following closure of the cable line in 1905, the car was used as an electric trailer on the Circular Quay-Railway service. In 1911 it was transferred to the Sutherland-Cronulla steam tramway as a breakdown veh-

icle. It remained in this guise until August 1918, when it was sold for £10 to a resident of Lilli Pilli. It was from this resident's descendants that the Society acquired the vehicle in 1968.

Works Report

As a prelude to the Society's contribution to the Australia-America Festival (and the forthcoming COTMA conference), the Society's painter, Peter Chambers, has been actively engaged in transferring dust and soot from 1022 to himself prior to a comprehensive repainting of the locomotive. The painting job is progressing satisfactorily and it is expected to be completed for the special steamings on Sundays 4th and 18th April. Motor 103A will also receive a clean-up prior to the Festival. Both of these items of motive power are American-built. We believe 103A to be the oldest operating American-built steam locomotive in regular use in Australia today.

from BRISBANE

Brisbane Tramway Museum Society



Museum Progress

Regrettably, due to a combination of continuous rainfall, the school holidays and members away interstate and overseas, there was a very marked slow down in work at the Museum during the latter half of December through January to early February; in fact, NO work was done, except that carried out by our caretaker, assisted by the few members who went to the museum during that time. The number of manhours worked fell to below a quarter of the monthly average.

Since that time, work has been slowly picking up, and the first large organised work party, the clean-up over the weekend of 27/28th March, will kick off what promises to be a very busy year.

This year should see the completion of the first depot building, and the trackwork in the museum's leased area. It is hoped to also erect the second depot, install 11 KV power to the sub station and renovate the caretaker's residence as well as numerous other smaller projects. The Council of the Society is hopeful that all members will make themselves available for work parties this year so that these objectives will be attained.

Depot Building

The last two bays of the building are unable to be completed because of a short fall in the

supply of the Colorbond material. Councillor Peter Hyde is presently involved in investigating this short supplying and a way to obtain the missing sheeting. The old galv. iron to the front of the shed has been replaced by Colorbond and greatly improves the overall appearance of the shed. Roof capping is presently being painted, ready for installation. All baffle walling has been completed, and this has resulted in an improvement in that very little water flows into the inside of the shed during the heavy showers that we have been experiencing all too often lately. Due to the risk to members if a fire should break out in trams at the front of the shed, it has been decided to install a small door at the rear of the building.

Paint

The museum's Planning Committee has been looking into ways of obtaining supplies needed urgently for work at the Museum at cost price or less, and recently has had another success. After approaches were made to them by the Committee, Berger Paints (Q'ld.) Ltd. have agreed to supply the Museum with undercoat and primer paint and thinners at no cost, and gloss and final coat paints at cost price. A delivery of some of this paint has already been made to assist with work begun on the book-



stand, and soon to start on the caretaker's residence. The Society is deeply grateful to *Berger* for their generosity, and their realization of the difficulty experienced by bodies such as the Museum, who are run on a voluntary basis and rely on donations from their own membership to finance the project they are setting up. Already the paint has been put to good use, as, on the weekend 20/21st March, the doors on the book stand were removed, scraped and sanded down and primed with paint supplied by *Berger*.

Renovation of House and Bookstand

Because of the increased numbers of visitors that are inspecting the museum on Sundays, and are wanting books and publications, the renovation of the Edward Street bookstand has begun in earnest. The stand has been cleaned out, and the front doors removed. Rotten wood work is being replaced around the front and the doors sanded down and painted with primer. It is planned to paint the interior cream, as well as replacing the guttering around the roof. A large amount of book material will then be stored in the stand and made available for visitors.

Work should also start late in March on painting the caretaker's residence in the approved Museum colour scheme. The caretaker, Phil Smith, has submitted rough plans for the laundry and bathroom extension, and these plans are being considered by the Council before being drawn to scale and submitted to the Brisbane City Council for approval for the work to begin.

Ex-Sydney R1 1936 on a property outside Ingelwood. This car has now been donated to the Society and will be used to supply parts for R1 1969.

—Peter Burden

Painting of Trolley Buses

Now that they are stored in a dry, level area between the workshops and the store shed, it is hoped to acquire the services of some members who are unable to do heavy work to scrape down and paint the two trolley buses Nos. 1 and 34. The action of the sun on their aluminium panelling has seriously deteriorated the paintwork.

Depot Number Two

Preparation work has begun on planning for the impending erection of the second depot building. It has been decided to paint the various 'A' frame and girder sections whilst still stored on the ground, rather than after the framework has been completed. This will eliminate the need for those members with a head for dizzy heights to hang by their toes from the steelwork and paint, as was done with the first structure. (Do we hear Phil Steele cheering?)

Sydney Tramcars

Planning Committee members Stephen Tyrrell, and his wife, and Eddie Gough undertook a long and sometimes adventurous journey to near Glenmorgan on the Darling Downs to make an inspection of Sydney R1 tramcar 1969 to determine whether it was suitable for preservation in the Museum. During their nearly 600 mile return trip they had to cross paddocks,

flooded creeks in a rowboat, and made some wrong turns, but, happily, made it to the tram and found it to be in very good condition, with most fittings except the seats still in the vehicle and very little weather damage. Since that date the Council has begun to work out a way of getting the tram to the Museum. R1 1936 at Ingelwood, which had previously been donated to the Society by the owner, will be used to supply spare parts for No. 1969. It is anticipated that Brisbane FM bogies and electrical equipment will be used to restore 1969 to operating condition.

from WANNEROO

Western Australian Transport Museum

The item of interest in *Trolley Wire*, re WATM is now obsolete. The plan was thrown out when a sudden twist took place.

Castledare authorities have now given us the use of three well built brick squash courts for the tramway. These courts can be and are being built on and will enable us to build our Car Barn very soon. This will give us an area about 100 ft x 63 ft, half of which has the brick-

work erected to 50 ft x 20 ft high x 63 ft wide. We have the necessary roof trusses for the roofing of half the area.

Transfer of the tram bodies to the area has begun onto the existing concrete floor. Track laying is to start immediately from the centre squash court. The area is only about 100 ft further along the plan as originally accepted and reported in this magazine.

The plan now is to start erecting the roof and to lay the track in the barn area and to progress out, then continue on as per the original plan.

The prospect is now something to get enthused about and get some work done.

Two more Perth 4 wheel tram bodies arrived on the site recently, having been at Busselton, some 135 miles away, for some 20 odd years. Both have been holiday huts and are in reasonable condition. The cars are B class 81 and 76. No. 76 is believed to have been the tram used to test the South Perth tramway in 1922.

BELOW: At work on the squash courts which will become the car barn for the museum fleet of the WATM.

—H. Cowell



from ALBION PARK

Illawarra Light Railway Museum Society

During late January and February site progress was hindered again by extreme wet weather, but progressive drain clearance and widening as well as the lifting of the floor of the engine compound by some 200 tons of road base material have improved the accessibility of the museum site in wet weather. During this period, chain wire erection extended to the northern fence of the compound and by late February, 28 of the 10ft fence panels had been completed with a further 17 panels awaiting wire mesh.

Four 2ft gauge bogies were lowered onto the museum tracks on 28th January. These items were amongst a large quantity of light railway equipment offered for sale by the Condong Mill near Murwillumbah during 1975 when the cane field railway lines in that area were closed. These will be later used in the construction of passenger vehicles on the Albion Park Museum Railway. The ILRMS has negotiated for another ten bogie sets from other sources and these will be delivered later during the year.

Another interesting item arrived at Albion Park on 21st February. This is a 2ft gauge battery-electric locomotive discovered disused at the Portland Cement Works in 1974. This unit was used at the Ivanhoe colliery near Portland, N.S.W. until approximately 8 years ago when, it is believed, rail haulage was dis-



2ft gauge bogies recently delivered from the C.S.R. Mill near Condong, northern N.S.W.

—Paul Simpson



The "Mancha" battery-electric loco formerly used at the Ivanhoe Colliery near Portland, N.S.W.

—Paul Simpson

continued at that location. The Society thanks the Portland Works' Manager Mr. Hulonce and the Sub Manager Mr. Stobert for their representations on our behalf which resulted in the locomotive being donated for preservation, and to 'Blue Circle Southern Cement' (ex Commonwealth Portland Cement) for making the relic available.

The locomotive is in good condition and was manufactured by the 'Mancha' Storage Battery Locomotive Division of the Goodman Manufacturing Co. of Chicago. The only reference numbers discovered so far on the vehicle are the Approval No. 1511 of the U.S.A. Mines' Bureau and another reference 'C4024'. The principal dimensions are:-

Length 14' 0"
 Wheel base (four wheels) 3' 2"
 Width over chassis 3' 6"
 Height rail to battery box top 4' 3"
 Width over battery box 4' 0"
 Wheel diameter on treads 1' 2"

The locomotive is of similar arrangement to the ILRMS 'Gemco' electric loco, but of much larger proportions. The Gemco unit, however, works on approximately 40 volts and is powered by two motors, while the 'Mancha' loco has a single motor of 30hp, requiring a 100 volt supply.

Mr. S. Green, carrier of Balgownie, is thanked for delivering the vehicle free of charge as a back load from Portland to Wollongong.

TROLLEY WIRE

Work is progressing on the extension of the electricity supply from the meter post into the leased museum property. During February and March some 250ft of underground power cable was laid on the property which will enable the

supply to be available for security lighting at a power outlet in the locomotive compound while a 2nd cable has reached the adjacent area sub-leased to the South Coast Model Engineering Society.

from LOFTUS

South Pacific Electric Railway

Siteworks

To store the museum's growing collection of bogies, a siding is being laid in the side yard to the west of the main line. When completed, the siding will accommodate the spare bogies which are at present strewn about the site. At the same time, other materials stored around the depot will be tidied up.

The depot has itself been tidied, and during March the front half of the shed was filled in to rail level, creating a much better appearance to the visitor. The shed will eventually receive an all-over coat of green paint.

During February the bookshop received extensive remodelling, most of it long overdue, and it now presents a more pleasing appearance.

The toilets have been relocated to a site on the opposite side of the roadway near the

sub station. This was done to allow activity to be undertaken in the area between the rear of the depot and the substation area.

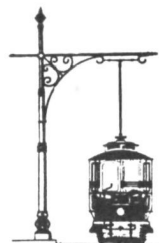
Jim Lucas has been active recently mowing the grass around the depot yard and near the platform, greatly enhancing the appearance of the public circulation areas.

Car News

R 1740 has had the canvas door blinds replaced by Bruce Pinnell. These he acquired through the generous donation of Mrs. Stirling,

BELOW: The Ballarat cars watch apprehensively as an intruder in the form of a borrowed front end loader edges closer in the depot at Loftus. The loader was used to transport soil for filling between the rails.

—Tony Cody





herself the owner of several Sydney tramcars on her property near Mittagong. The car has now re-entered service after a prolonged absence during which essential maintenance work was carried out, including major work on the car roof.

PR1 1573 has been the subject of much mechanical work over the past few months. During February a Tomlinson coupler arrived from Adelaide, there now being two available for this car. The tram has been moved into the main shed; O1111 taking its place on 'B' road.

The O car has been withdrawn from service due to its deteriorated mechanical and structural condition and was suitable for swapping with 1573.

Phoenix car 548 has had the time consuming operation of the removal of the advertising signs almost completed. These had been painted on and proved to be the most difficult areas of paint removal on the whole car! When completed the exterior of the car can receive a full repaint and will then be ready to join the fleet of traffic cars.

Brisbane car 180 has reappeared from a brief visit to the paintshop with its roof painted white; the correct colour for the roof for the overall colour scheme applied to this car.

OP car 1089 is to be moved shortly. It will be brought to Loftus as acts of vandalism are becoming more of a reality on the Ingleburn site where the car is currently stored. The tram will be placed in an enlarged side yard.

Continued progress by the paintshop staff

O breakdown car 142s and R1 1996 are among the Sydney trams at Joadja which yielded spare parts recently.

—Tony Cody

has seen the completion as far as practicable of the cream and green colours on the E cars 529-530. Some experiments have also been carried out to determine some up-to-date methods of carrying out major restoration on the rusted sections of the weather rails and the underframe plating.

Offsite work during February and March has seen the salvaging of many useful spare parts from R1 and O cars on a site at Joadja.

Bus Preservation

In line with established policy, the Directors of the Society have authorised the acquisition of buses, to broaden the scope of the Museum.

Buses have played a major role in Australia's transport development since the 1920's. Initially they played a supporting role to the tramway systems, but, with notable exceptions, eventually replaced them. Space at the museum is at a premium and it therefore essential that the potential exhibits be chosen with care.

The Society's early collection phase was concerned with trams which were rapidly being scrapped. Now, however, the Government's other stalwarts, the World War II era double deck buses, are being phased out by newer, modern types. It is a case of acquiring redundant vehicles now, or not having them at all. The society aims only to collect buses that

were in government service and operated during the tramway era. The buses so far acquired are:-

1937, Leyland half-cab, single deck.

1939, Albion double deck, built for the Manly lines conversion.

1940, AEC double deck, enclosed back platform type.

These vehicles are all in private covered storage. This is not the first time the Society has sought buses for preservation. A trolley bus and a diesel bus were among early requests but lost because not enough money was available.

New Site

At the suggestion of the Society, the Sutherland Shire Council convened a meeting between the relevant authorities associated with the relocation of the Museum. The meeting was held on 30th January with the following attendance:-

Department of Main Roads

Health Commission of New South Wales

Department of Lands

NSW Planning and Environment Commission

Department of Education

NSW Police Department

Sutherland Shire Council

SPER, represented by N. Chinn, R. Cowing, and D. Rawlings.

One problem which seriously effects the setting out of the new museum site is the exact

location of the boundary between the site and the highway. This is presently being investigated. Clearing of the site of the undergrowth and dumped rubbish will begin shortly.

Historical Accuracy Committee

This committee was set up to advise the Board on the extent of restoration of the Museum rolling stock. Four period groupings were selected:- 1896-1914; 1914-1934; 1934-1961; experimental, for the Sydney cars and appropriate eras for the interstate cars. The list of periods and the cars allocated to them is as listed hereunder:-

1896-1914: C29; C290; D102; F393; N728; 24s; Dummy.

1914-1934: E529-530; K1296; OP1089; LP154; 948; Grinder.

1934-1961: O1030; O1111; P1497; R1740, R11979; PR11573; 99u; 144s.

Experimental: 93u (advertising car).

Ballarat: 12 - 1940's; 37 - 1950's

Brisbane: 71 - 1920's (Brisbane Tramway Co.) 180 - 1930's; 295 - 1940's, 548 - 1963.

The Directors have subsequently accepted the recommendation but have asked for comment from the membership now that the basis for the policy of restoration has been set. To date some quite strong objection has been raised, and the Board is investigating all the comment placed formally before it.

City Section

NEWS OF THE MELBOURNE & METROPOLITAN TRAMWAYS BOARD

A private contractor for the Fitzroy City Council commenced work in Holden Street, North Fitzroy from Nicholson Street to St. Georges Road, to remake the whole of the roadway and kerbings. The contract included removal of the single tram track, which was carried out very quickly. The rails, in good condition due to very little use, were delivered to the M.&M.T.B. for future use.

Track relaying with new rails set in mass concrete has started in Gilbert Road, West Preston, on the Up track, from Bell Street, south towards Miller Street. Temporary track is in use, as usual.

No additional work has been carried out for the new Essendon Airport terminus at Mathews Avenue since several new span poles were placed some months ago. Two pedestrian overhead footbridges are being very slowly built, and it appears that the two projects are interdependent.

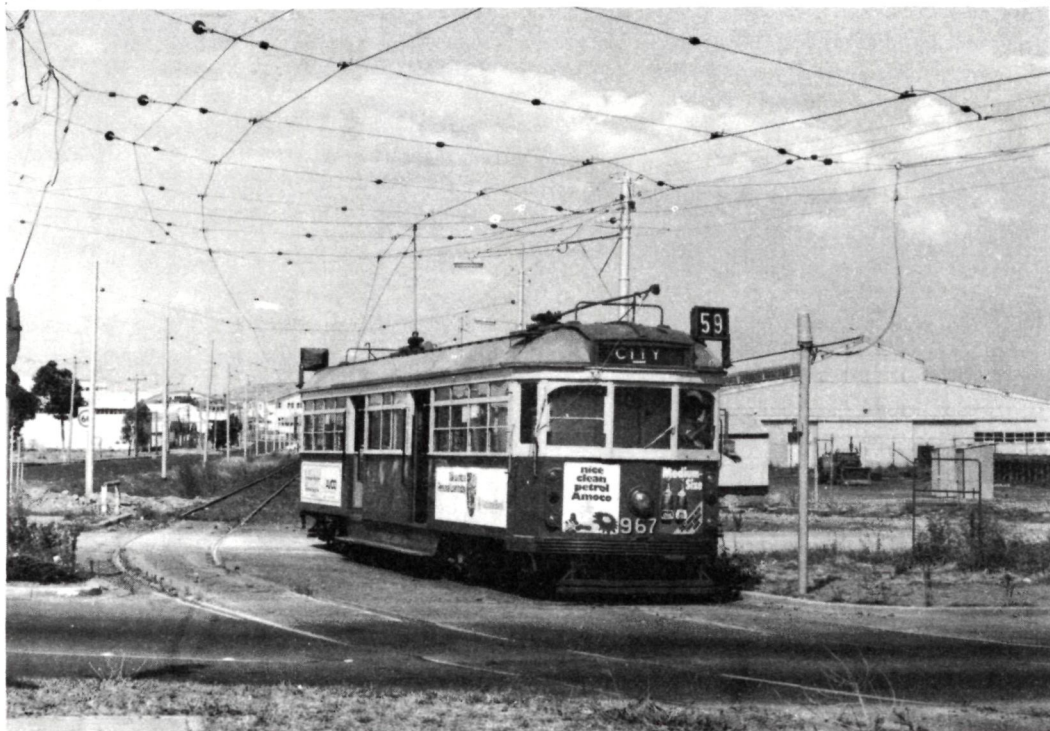
Z class car No.31 entered service on 19th March 1976 at Nicholson Street Depot. (Nos.

29 and 30 had previously run from East Preston Depot.) Nos.32 and 33 are mobile at Preston Workshops.

Several W6 and W7 cars from East Preston and North Fitzroy Depots have appeared at Kew, Camberwell, Malvern and Glenhuntly Depots in recent weeks. The rolling stock situation seems rather fluid at the moment, with some of these cars remaining for only a few days, others have stayed for many weeks.

On the weekend of 28th/29th February, depot starters called a strike in protest to working continual 13 day fortnights. As a result, crews helped themselves to the first available car on the Sunday morning. Subsequently, at least seven W2 class cars were out, some of them until last car. This class of car has not been seen on Sunday services for some years. Cars sighted included No.270 on route 72, 556 (70), 495 (70), 511 (74), 517 (74), 624 (69) and 536 (79).

The new style 'prow' safety zones mentioned last issue are manufactured by the M.&M.T.B.



W6 car 967, formerly attached to Preston depot, is seen here turning out of the last section of the Essendon Aerodrome line. This section is to close shortly.

—Clive Mottram

at the Civil Branch yard at South Melbourne. The previous style was made by the Melbourne City Council. A light framework is welded from steel rod, placed in a mould and concrete poured. Provision is made for a large lifting ring at the point of balance to facilitate handling by crane. The new style units are illuminated at night by a lamp fixed to an adjacent kerbside pole, whereas the earlier design carried twin flashing amber lamps mounted on a post at the top of the prow. The new arrangement eliminates repair costs when vehicles strike or mount the prow.

to 'Bert Jones, Rushcutters Bay':-

Your request for publication of destination signs used on Sydney trams (and buses) has been considered. Often. However, on a conservative estimate, it would take some five years to gather enough spare room to publish all the details so far collected by the Production Editor of this magazine alone, without worrying about all the details so far missed. We do, however, have other ways of presenting this information in a comprehensive form, so if you would, in due course, send us your full address, we would be pleased to reply.

New South Wales TRAMCAR HANDBOOK – 1861-1961 PART TWO

The second part of this two part work covering the tramcars and ancilliary vehicles operated by the Government and private operators in New South Wales will be available from the publishers on 1st May 1976. This Volume covers, in 92 pages, the horse, steam and cable trams, steam and electric buses, miscellaneous and 'mystery' trams, as well as a resume of the rolling stock of the private lines. Many illustrations, including rare shots not previously published.

\$2.75 a copy (plus 50¢ pack and post)

from:

S.P.E.R. Publishing Department
P.O. Box 103, Sutherland, N.S.W. 2232.

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LOOKING BACK.... Above, we have Sydney trolley bus No.1; built for the Wylde Street to City service, but shown here outside the Ritchie Street depot after transfer to the Kogarah system. The bus still carries the temporary destination board. Below, trolley bus No.5, on tour, waits at Rockdale loop for the departure of No.20 on a regular service trip. Bus No.5 was one of three double deck buses built for the Wylde Street service and transferred to Kogarah after the former service closed. No.20 is one of 21 large dual rear axle buses built to open the Kogarah services in 1937.

