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CABLE CARS AND O'BAHN BUSWAY

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CONTENTS

| | |
|-------------------------------|----|
| NORTH SYDNEY CABLE | |
| TRAMWAY CENTENARY (Part 2) | 3 |
| ADELAIDE'S O'BAHN BUSWAY | 12 |
| HERE AND THERE | 17 |
| MUSEUM NOTES | 23 |

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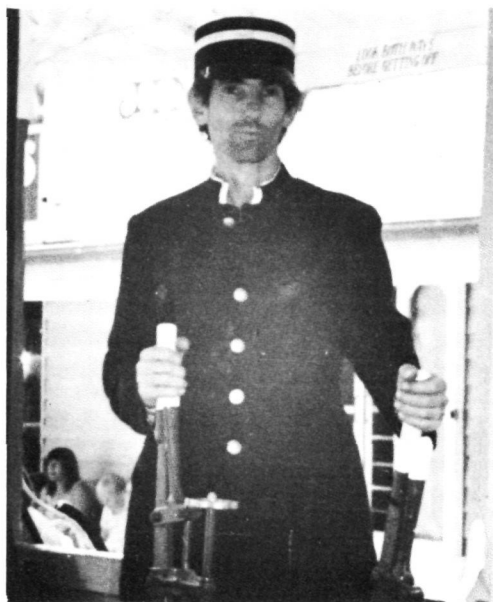
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*Newton Williams takes his position as gripman
on cable car 593 during its operation at the Swan
Hill Pioneer Village in February 1986.*

B. BUTLER

FRONT COVER

*Replica Melbourne cable grip car No. 593 operating at the Swan Hill Pioneer Village
during February 1986. The gripman is Newton Williams who constructed this superb
vehicle over a period of twelve months in 1984-85.*

B. BUTLER

BACK PAGE

*H.R.H. Prince Philip at the controls of Adelaide A type tram No. 1 with AETM
President Paul Shillabeer on 11 April 1986.*

COURTESY "THE ADVERTISER"

NORTH SYDNEY CABLE TRAMWAY CENTENARY

by K. McCarthy

Concluded

Tramway Extension

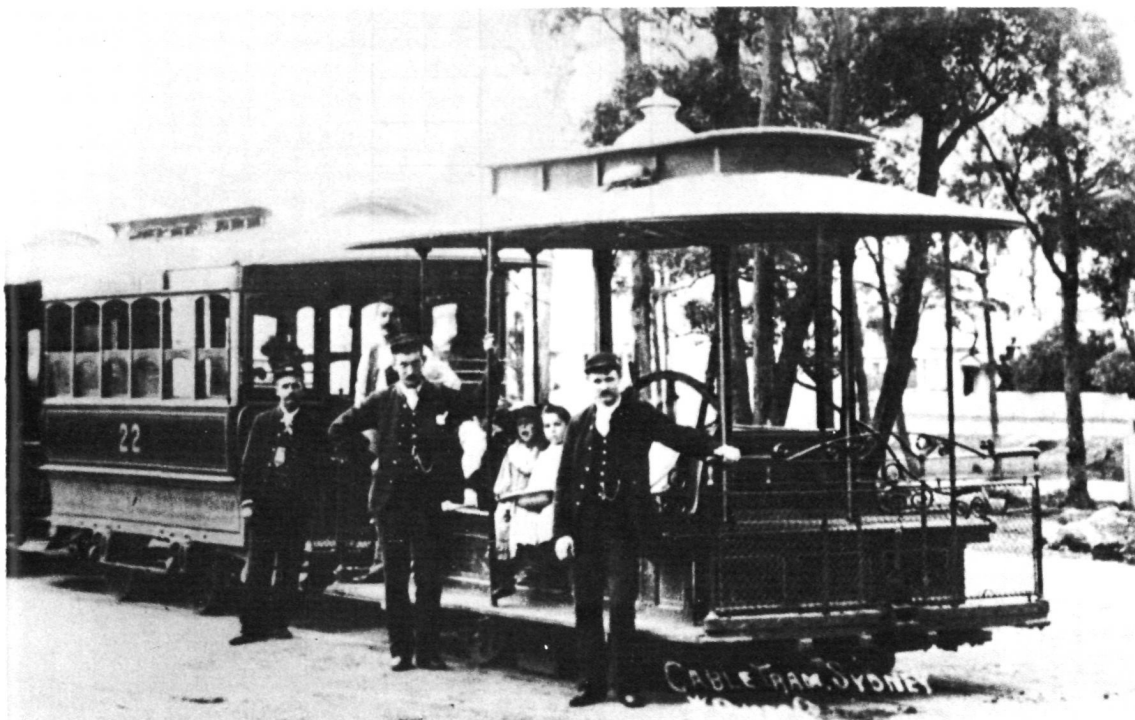
Initial plans called for the construction of a railway from Hornsby to a terminus near the present Crow's Nest area of North Sydney. Passengers bound for the city would be required to complete the journey by cable tram to Milson's Point and ferry to Circular Quay. The protests expressed against this proposal resulted in the railway being rerouted. The section from Hornsby to St Leonards opened on 1 January 1890 and the extension to Milson's Point, adjacent to the tramway terminus, officially opened on 29 April 1893.¹⁵

In spite of the decision to redirect the inner end of the North Shore railway, a 60 chains cable tramway extension from Ridge Street terminus to the intersection of Falcon Street and Lane Cove Road (Crow's Nest) proceeded.

Justin McSweeney's tender of £17,439 for this project was accepted and work commenced during May 1891. Although the double track was completed by the start of 1892, tramway operation could not be extended as the new winding engines were not available.

Hudson Brothers commenced work on the winding gear during February 1893. Their tender amounted to £9351 for new driving gear and power plant.

Included in the plant expansion was the construction of a cable storage shed and extensions to the buildings which housed the boilers, winding engines and rolling stock. C Robinson completed the cable store shed on 1 April 1893 at a cost of £345 while Grant and Matheson commenced work during July 1892 on the major buildings which cost £3203.



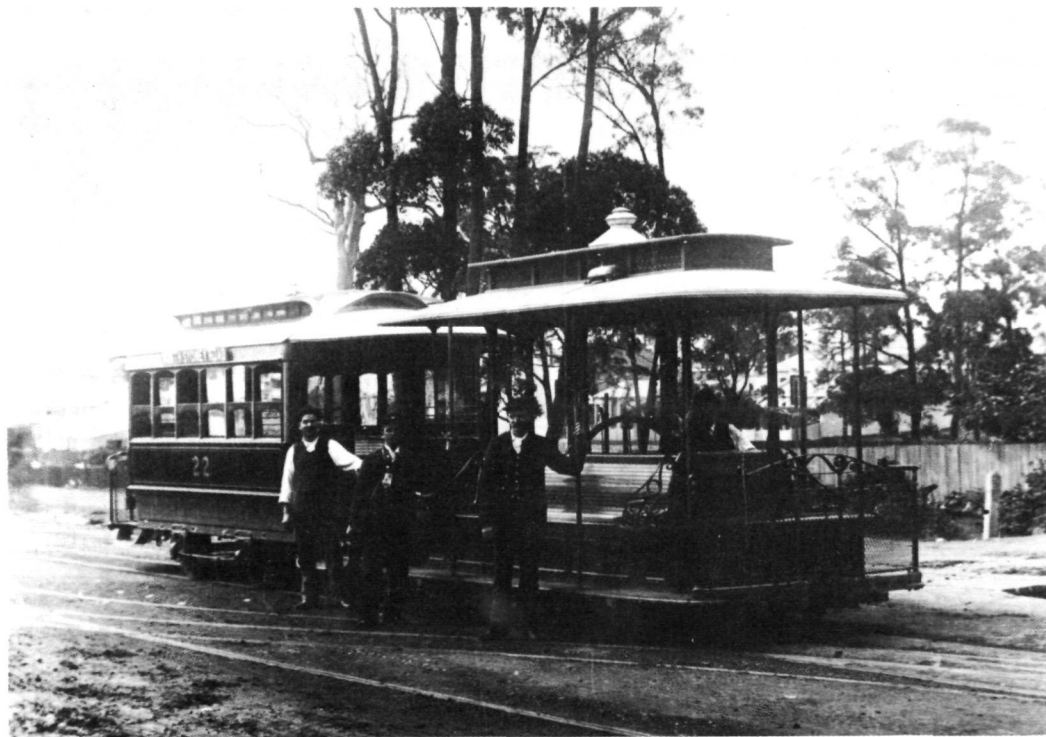
Grip car 2 with two trailers, the first of which is No 22, at the Lane Cove Road terminus (Crow's Nest) of the cable tram extension about 1893.

STAR PHOTO, C. B. THOMAS COLLECTION



A grip car and two trailers approach the Milson's Point Arcade terminus, circa 1895.

T & S WOODBURY PHOTO, C. B. THOMAS COLLECTION



Grip car No 12 and trailer 22 at the Lane Cove Road (Crow's Nest) terminus of the 1893 North Shore cable tramway extension. The slot under which the cable returned on the inwards or 'up' journey can be seen in the foreground.

C. B. THOMAS COLLECTION



Grip car 6 glides uphill in Alfred Street near Burton Street towards the close of 1899. The days of cable traction on the North Shore are numbered as the overhead wires for the electric trams are already in place.

KERRY PHOTO, COURTESY TYRRELL'S PTY. LTD.

The two original independent single cylinder Fowler winding engines of 1886 were coupled together and by increasing the steam pressure to 120 lb/squ.in. the unit could develop 300 IHP.

The new boilers, winding engine, driving drums and tension gear were manufactured by Hudson Brothers of Clyde. The new engine was a compound Corliss type with 19 inch and 30 inch diameter cylinders with a 3 feet stroke. Working at 120 lb/squ.in. pressure 300 IHP could be developed. The crank shaft was 9½ inch diameter at the journals and it operated at 64 rpm. Porter governors limited the speed automatically to a tolerance of 3 rpm under varying loads.

The drive shaft between the two pairs of engines were connected to the crank shaft by couplings. The noisy gear drives were replaced by rope belts. The new shaft pulley was 6 feet 9 inches in diameter and this drove a 19 feet 6 inch pulley which reduced the speed to 18.5 rpm. Each pulley had grooves for 15 × 2 inch cotton ropes or belts

but only ten ropes were required as the engine was not operated to full capacity.

This driven shaft was 16 inches in diameter and was fitted with two cable drums of the Walker patent, manufactured by that firm in Chicago. The Lane Cove extension drum was 11 feet in diameter and operated the cable at 9 mph while the Milson's Point drum amounted to 10 feet 6 inches diameter with a speed of 8 mph.

The incoming cables were partially wound around these drums, then half around the tension wheels before passing out under the tram tracks. The total length of North Shore cable had increased to 4½ miles. The Milson's Point rope was 15,180 feet and the extension cable 8,580 feet.

Three externally fired multi-tubular boilers, each 7 feet diameter and 15 feet 6 inches long, with a grate area of 33 square feet, powered the engines. Two of these were adequate to work the cable line



A grip car hauling two trailers rounds the sharp curve from Blue Street into Miller Street about 1895.

K. McCARTHY



A similar view to the one above but with grip car and single trailer. It was taken a year or two later than the view above yet earlier than 1899.

COURTESY TYRRELL'S PTY. LTD.

as well as the electric tramway extension to Spit Road then under construction.

On Saturday 15 July the Milson's Point cable was transferred to the new winding gear and from Sunday 16 July 1893 the tram service operated to the new terminus.¹⁶

The new extension did not generate much additional traffic. For the year ended 30 June 1893 2,528,400 passengers were carried on the North Shore cable tramway. This figure had only increased to 2,534,890 for the year ended 30 June 1895.

Air Brakes on Tramcars

The hand operated wheel and track brakes proved inadequate on the King Street cable line opened in Sydney in September 1894. During 1895 Standard air brakes were fitted to the rolling stock on that line. On the conclusion of that job

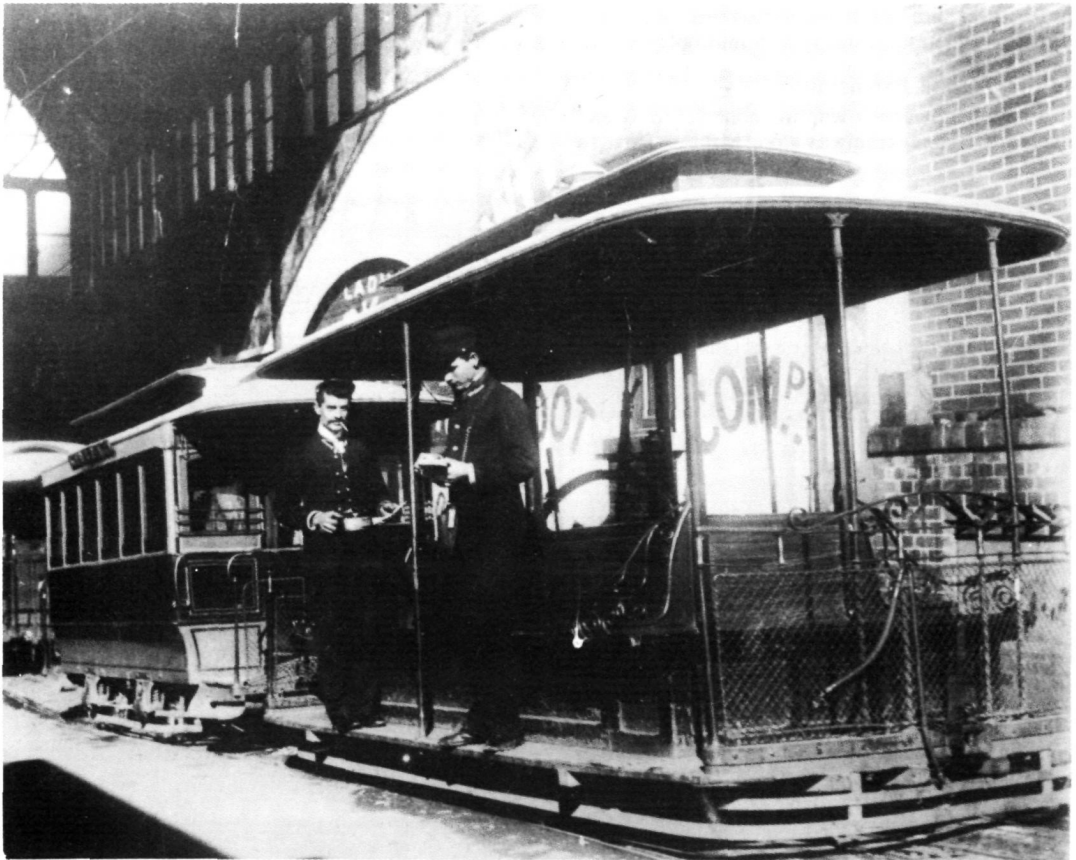
this safety device was provided on the North Sydney cars.

These brakes worked at an air pressure of 32 lbs/squ.in., the reservoirs being charged by a compressor worked by an axle eccentric on the grip car when the car was in motion. A train pipe coupled with an air hose transmitted the air to the brakes on the trailer car.

Gripmen had to report a defect if the gauge registered above 32 lbs or below 20 lbs when the car was in service.

The brake pedestal and handle was located in the middle of the grip car so that the gripman could operate the air valve when working the grip car in either direction.

The handle operated between 4 o'clock and 8 o'clock when looking down on the pedestal. When the air brake handle was at 4 o'clock the brakes were off and the grip car could proceed. The 5



The crew on grip car No 2 take a brief rest as they await the arrival of the ferry at Milson's Point terminus. This view dates from late 1899 as the overhead trolley wire for the electric cars is in position. The air brake connecting hose can be seen at the front of the grip car while the brake pedestal and control handle is just to the left of the "C" in the wall advertisement.

C. B. THOMAS COLLECTION

o'clock position was the "starting point" for brake application, the 6 o'clock position gave an emergency brake application, 8 o'clock or the far left position held the air brakes on while the "lap" or gradual feed of the brakes could be brought about by moving the brake handle between 6 and 8 o'clock.¹⁷

The application of air brakes to the Sydney cable trams were the first such installations carried out on Australian tramways. Here also is the key as to why the Sydney air brake handles worked in the opposite direction to all or most other systems. The 6 o'clock or centre position of the air brake handle resulted in the lever being across or transverse to the grip car. The 8 o'clock or "hold" the brake on position was towards the rear of the grip car. This air brake position was in the same direction as the grip lever when the jaws were opened and the cable disengaged. Thus the grip lever and the air brake handle were in the same direction when the grip car was stationary. The air brake lever and the grip lever were in the other direction when the tram was in motion!

Military Road Extension

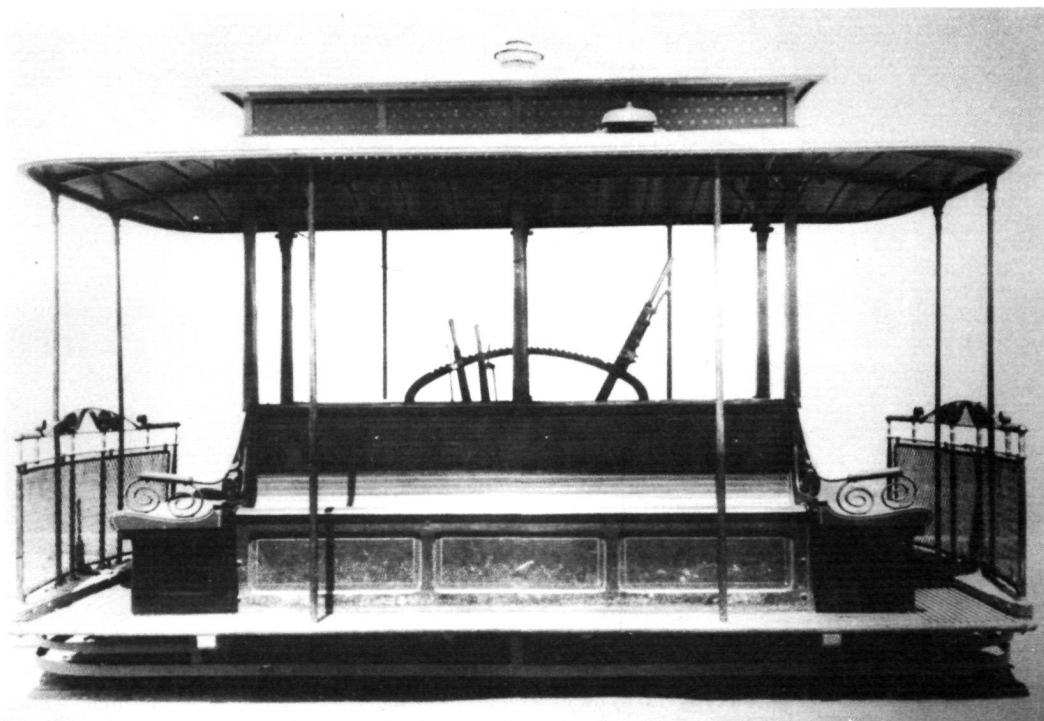
Justin McSweeney won the contract to extend the North Sydney tramway along Military Road to

Spit Road. Work commenced during October 1892 but the extension was not opened until 20 September 1893. This was originally planned as a steam motor extension beyond the cable tramway but overhead was erected along the route and the three Stephenson electric tramcars and the ancillary equipment was transferred from the 1890 experimental electric undertaking along the Randwick to Waverley tramway on the main Sydney system.

A Westinghouse compound steam engine with 9 inch and 14 inch cylinders taking steam at 110 lb/squ.in. from the main boilers in the cable winding house drove the Thomson Houston generator at 99 rpm to produce a line voltage of 500 to 550.

The final cost of the Lane Cove Road cable tram extension, which amounted to 60 chains of double track along Miller and Falcon Streets, was £41,322 while the Military Road single track electric tramway which extended 2 miles and 11 chains beyond the Ridge Street depot only cost £16,994. This latter figure included the modest cost of £5,509 for the trackwork!

From 28 February 1895 the Military Road electric tramway generator was disconnected from



A North Shore grip car posed for an official photo, circa 1900. When transferred to the King Street cable line in Sydney, these cars were fitted with a different grip mechanism.

F. MOAG COLLECTION

the Westinghouse compound steam engine. Its reconnection to the cable tram winding engines resulted in a considerable fuel saving in working the entire North Shore tramway network.

Operating the Cable Extension

With the opening of the Lane Cove Road extension the turntable outside the Ridge Street depot was replaced with a crossover while the terminus at Crow's Nest consisted of two crossovers forming trailing connections. As this terminus stood on a 1 in 32 grade away from the dead end, the outer crossover was slotted and the inner one was used by the trailers. The trailer would be uncoupled from the grip car on the outwards or "down" track at the terminus. The grip car would be then drawn ahead to the dead end by the outward cable. This car would next reverse back through the slotted crossover by gravity and brought to a halt on the inwards of "up" track on the Milson's Point side of the unslotted trailer crossover. The trailer would then run by gravity through its crossover to meet the grip car on the "up" track.

During busy periods many cable sets terminated at the old Ridge Street terminus. The shunting operations here must have required a considerable amount of manpower, as the trailing crossover was situated on a short length of 1 in 44 grade falling towards the south. The car shed connecting track, however, may have been used for trailer shunting thus simplifying the turn back process.

Short Life of Lane Cove Road Cable Line

Just 3½ years after the opening of the Lane Cove Road cable extension a further route expansion of 2 miles 45 chains from Crow's Nest to Willoughby was authorised. This was an electric tramway constructed for £16,978.

Electric trams entered service on the Willoughby extension on 25 April 1898 and from that day the cable service was cut back to the original Ridge Street terminus.

Cable Performance

Unfortunately a complete cable history is not available for the North Sydney cable tramway. From isolated data in the Annual Reports it would seem that a total of 12 or 13 ropes were used on the Milson's Point to Ridge Street section while 2 ropes may have supplied the needs of the Ridge Street to Lane Cove Road extension for its 4 years and 8 months period of operation.

The best cable life on the steeply graded Milson's Point to Ridge Street portion of the undertaking occurred from 4 December 1892 to 7 April 1894 when a single cable operated for 490 days to return a mileage of 104,539. This rope was

in such good condition when removed that it was stored until needed for further use on the less strenuous Ridge Street to Lane Cove section!

Other outstanding rope life periods were achieved:¹⁸

| <i>Dates</i> | <i>Days in service</i> | <i>Miles run</i> |
|-------------------------|------------------------|------------------|
| Nov 1891 to Dec 1892 | 371 | 74,926 |
| April 1894 to June 1895 | 420 | 89,731 |
| June 1897 to April 1898 | 285 | 77,134 |

Closure of the Cable Tramway

By 1898 a total of 6 miles 5½ chains of North Sydney tram routes were worked by electric traction. The tracks reached out from Ridge Street to Willoughby, Spit Road and Mosman Bay. By 1899 the decision had been reached that on the completion of the central tramway power house at Ultimo, the commissioning of the George Street to Pyrmont route in Sydney and the completion of submarine feeder cables under Sydney Harbour, electric trams would replace cable operation between Ridge Street and Milson's Point.¹⁹

During 1899 new longitudinal sleepers were fitted on worn sections of the cable track to support interim electric operations while work was initiated on the erection of poles and overhead wire to the harbourside.

Edward Gallagher erected 140 iron span poles for £187-10s-0d. He won this contract on 13 January 1899 and completed all but the erection of 10 large poles, which did not arrive in time from USA, by 5 April 1899. The final costs were:

- 33 poles at £1-6s-0d each.
- 84 poles at £1-13s-0d each plus 7/- extra for rock excavation.
- 8 poles at 15/- each.

Patrick Ryan supplied the horses for the tower wagon involved in the stringing of the overhead wires. His charges were:

- Man and horse 10/- per working day
- Man and 2 horses 15/- per working day
- Night work 2/- per working hour
- Overtime 2/- per working hour

These rates were accepted on 25 March 1899.

The Ridge Street car shed was again extended at this period. Mountney and Coy. provided the roofing iron for £143-16s-2d, the deliveries being completed by 31 January 1900.

The North Shore Ferry Company also displayed generosity on 1 April 1899 when it reduced the rent paid by the tramways for the use of its land at Milson's Point from £60 to £20 per annum!

Stoppages on a cable tramway could be monumental. At 7pm on Monday evening 27 November 1899, when businessmen were return-

ing home, the cylinder head on the cable winding engine at Ridge Street blew out. A line of horse omnibuses was called into use until the emergency engine was connected to the cable drum.²⁰

By the start of February 1900 the electric tramway extension from Crow's Nest to Gore Hill was ready for service while construction work was well advanced on the Neutral Bay and The Spit branches. This work would add another 3 miles and 48 chains of routes to the North Sydney system.

Prior to the conversion of the cable route to electric operation the North Sydney electric lines were served by Stephenson electric cars 1 to 3 and the small end loading single truck electric trams which later became the "C" class numbers 4 to 10. Some of the California combination's which later became the "D" class were transferred to the North Shore for the conversion in late 1899.

During the second week in January 1900 a full service of electric cars was operated on trial during the early hours of the morning. The electric current was switched on from Ultimo power house and six of the combination cars, hauling one cable tram trailer each, operated at one minute intervals along the cable route from Ridge Street to Milson's Point. This was repeated with the electric trams

hauling two trailers each. The trials were judged a success and all returned to the car shed at 4am.

On Saturday evening 10 February 1900 the last cable trams entered Ridge Street depot and without a public announcement electric trams took over the service from the following morning.

Further Fare Details

16 July 1893

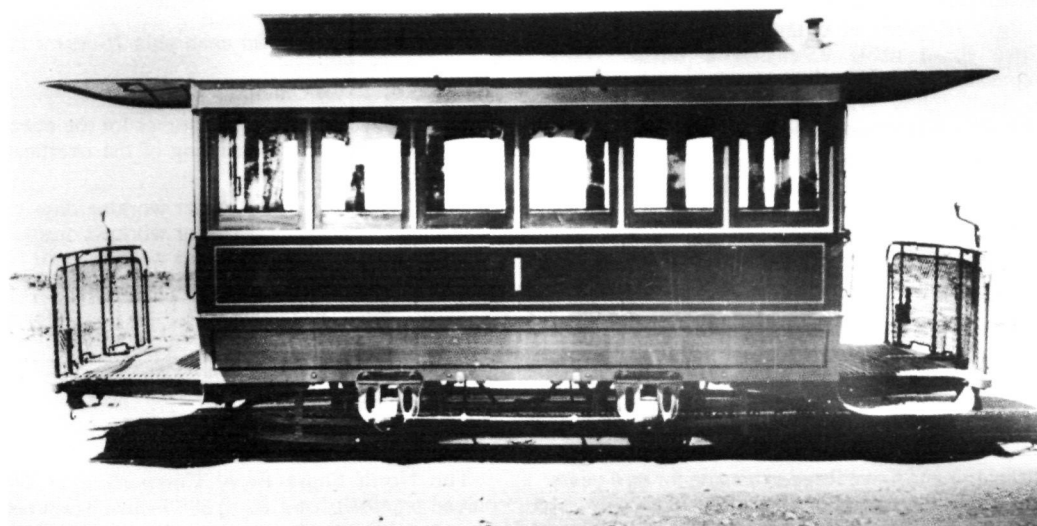
- 1st section — Milson's Point to Alfred Street.
 - 2nd section — Alfred Street to Mount Street.
 - 3rd section — Mount Street to Ridge Street.
 - 4th section — Ridge Street to Lane Cove Road.
- Each section 1d. by pre-paid ticket or 2d. if cash tendered to conductor.

19 February 1894

The first section was officially changed from Alfred Street to McDougall Street. (It is not clear how this altered the fare structure as the McDougall/Alfred Street intersection is identical to the Junction/Alfred Street intersection.)

1 August 1894

- 1st section — Milson's Point to Walker Street.
 - 2nd section — Walker Street to Ridge Street.
 - 3rd section — Ridge Street to Lane Cove Road.
- Each section 1d. by pre-paid ticket or 2d. by cash tendered to conductor.



North Shore cable trailer No 1 photographed on a North Sydney electric route about 1900. This car must have met with an accident at one stage as the original axle box at the left carried the 'J.M. Jones' name while the pedestal at the right is branded 'Hudson Bros. Ltd.'.

TRAMWAY ARCHIVES PHOTO, C. B. THOMAS COLLECTION

1 February 1896

Sames sections.

Each section 1d. by cash tendered to conductor.

2 April 1900

1st section — Milson's Point to Ridge Street.

2nd section — Ridge Street to Ernest Street.

Each section 1d. by cash.

Further use of Cable Rolling Stock

At the time of the closure of the North Sydney cable tramway in February 1900 the rolling stock fleet consisted of 13 grip cars and 23 trailers.

Five of the grip cars were used on the King Street tramway in Sydney as open trailers while a further eight were fitted with new grip mechanisms and used as grip cars in Sydney.

Seventeen saloon trailers were retained at North Sydney as electric trailers while the balance of six cars were taken to King Street where they were renumbered into the Rushcutters Bay depot roster and continued to work on that cable line until it too was replaced by electric trams in January 1905.

During the 1904-5 financial year 18 Sydney tramcars were sold to the Electric Supply Company of Victoria Ltd. This batch consisted of 12 former North Sydney cable trailers, Stephenson electric cars 1, 2 and 3 from Ridge Street depot and narrow ("C" type) end loading saloon cars 14, 15 and 16 from the Rose Bay tramway. These were rebuilt by Duncan and Fraser and entered traffic as California single truck electric trams in Ballarat from 18 August 1905. These remained in service until the 1930-35 period.

A further batch of North Sydney cable trailers is thought to have been sold c. 1903 to the Northcote Council for use on the Clifton Hill to Preston cable tramway in the Northern suburbs of Melbourne. These continued in operation until 1920.

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3. See: K. McCarthy "When Horsepower Meant the Horse". *Trolley Wire*, December 1981.
4. Tramway Contracts Register No. 85/3801. *Sydney Morning Herald* 22-1-1885, p 7.
5. *Sydney Morning Herald*, 8-10-1885, p 14.
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10. *Sydney Mail*, 29-5-1886, p 1110. *Sydney Morning Herald*, 24-5-1886. N.S.W. Government Railways Annual Reports 1889, 1890, 1891
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12. *Sydney Morning Herald*, 24-5-1886. *Sydney Mail*, 29-5-1886, 5-6-1886.
13. N.S.W. Government Railways, 1887 Annual Report.
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17. NSWGT Tramway Working Orders 1898, p 35.
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For further reading see:

"The Cable Trams of Sydney and the Experiments Leading to Final Electrification of the Tramways", R. Wylie.
"ARHS Bulletin" Nos. 441 and 442, July and August 1974.

COUNCIL OF TRAMWAY MUSEUMS OF AUSTRALASIA 1986 CONFERENCE

will be hosted by the
AUSTRALIAN ELECTRIC TRANSPORT MUSEUM
at the Hilton Adelaide Motor Inn
176 Greenhill Road, Parkside
from
26th to 29th September inclusive

Enquiries can be directed to Mrs Bev Smith
G.P.O. Box 2012, Adelaide, South Australia 5001

ADELAIDE'S O-BAHN BUSWAY

The first six kilometre section of the 11.5 kilometre O-Bahn busway (now publicly referred to as the North-East Busway) was brought into regular commuter use on Sunday 9 March 1986.

Readers of *Trolley Wire* will no doubt follow the introduction of this pioneer transport system with interest as it had previously been proposed to build a rapid transit tramway.

History

Land had first been set aside to form the North-East transport corridor in the mid 1960s following the release of the then Liberal Government's Metropolitan Adelaide Transport Study. The study had envisaged a network of freeways across the city and suburbs, a plan now almost totally abandoned.

The oil crisis of the early 1970s created a 'new' concept for pollution-free public transport. In 1976 the State's Labour Government set up the North-East Area Public Transport Review to examine the public transport needs of Adelaide's expanding north-eastern suburbs. The report was

released in 1978 with a recommendation that a light rapid transit (LRT) line be constructed in the North-East corridor from Tea Tree Plaza to Park Terrace, Gilberton on the edge of the city.

Early in 1979 the Government announced its intention to proceed with the LRT plan, sparking protests from some suburban councils and environmentalists as two thirds of the route lies in the Torrens River valley. The Adelaide City Council objected to the proposed route along King William Street to link up with the Glenelg tramline. The combined route would require fifty light rail vehicles which would replace the 26 Glenelg trams.

On 24 July 1979 the Government announced that the line would be placed underground in King William Street at an extra cost of \$28 million — an expensive concession to the Adelaide City Council. Test drillings in King William Street commenced on 13 August 1979.

A snap State election on 15 September 1979 saw the unexpected defeat of the Labour Government. The new Liberal Government immediately halted work on the LRT line pending an investi-



Articulated Mercedes 1561 approaches Lower Portrush Road.

IAN HAMMOND



Commencement of the O-Bahn Busway at Park Terrace, Gilberton, not far from Hackney Depot. Paradise-bound buses enter the busway via a tunnel on the middle of Park Terrace while City-bound buses merge with the traffic (top left).

IAN HAMMOND

gation into its future. On 25 August 1980, the Minister for Transport, Mr Wilson announced that an O-Bahn guided busway would be constructed instead of the LRT line.

Another election on 6 November 1982 saw the Labour Party returned to office. The new Government stated that it preferred light rail but, as \$21 million had already been spent on the busway, decided to continue the project at a reduced pace. Completion of the busway to Tea Tree Plaza had been planned for 1986 but would now be 1988.

The Busway Concept

The O-Bahn concept was developed by Daimler-Benz in West Germany and is a mixture of rail and bus technology. The only other O-Bahn is 1.3 km long and operates in Essen, West Germany. Standard commuter buses travel on a concrete track at speeds of up to 100 km per hour. Like many modern railways, concrete sleepers are used, but instead of steel rails, 12 metre lengths of precast concrete 'rail' are used. The 'rails' have a raised outer edge to guide the buses. Each bus is fitted with small horizontal guide wheels attached to the front axle. These guide wheels run along the raised edges of the concrete 'rails' to guide the bus which, like other rail vehicles, requires no steering whilst running on the track.

The North-East Busway

Ninety Mercedes 0305 buses have been built for operation on the busway. Forty are of rigid design while the remaining fifty are articulated. All are fitted with the special guide wheels and were progressively run in on north-eastern routes over the last eighteen months. To emphasise their difference from the standard silver fleet, the new vehicles are painted white with green and blue stripes. St Agnes Depot near Tea Tree Plaza has been rebuilt to accommodate these additions to the fleet.

The buses travel from a city terminus in Currie Street at Kingston Street, along Grenfell Street, East Terrace, Rundle Street, Dequettaville Terrace and Hackney Road to the busway at Park Terrace, Gilberton (not far from Hackney Depot). Only three stops are provided in the city area, emphasising the 'fast' nature of the service. Two interchange stations are located on the busway; one at O.G. Road, Klemzig (about halfway) and the other at Darley Road, Paradise (the present terminus). At least ten bus routes radiate from the Paradise interchange to the north-eastern suburbs. Six conventional routes terminate or pass through the Paradise interchange while two others pass through the Klemzig interchange. Car parking is provided at Paradise interchange.



The railway influence can be seen in this view of the O'Bahn south of the present end of track at Darley Road, Paradise. Note the Pandrol clips fastening the concrete 'rails' to the sleepers. IAN HAMMOND



The O'Bahn track has been lowered to lessen the noise and visual impact on its surroundings in this scene at Gilberton. IAN HAMMOND



One of several bridges over the River Torrens. This picturesque scene in the Torrens Linear Park is near O. G. Road.

IAN HAMMOND

Weekday service frequencies on the City-Paradise section are from two to five minutes while travel time from Paradise to the City centre is scheduled to take only 10-16 minutes.

In conjunction with the opening of the Busway, changes to either routes, route numbers, timetables and/or city stops were introduced and affected over sixty other bus routes in the metropolitan area. This probably represents the biggest change to services since the tramway closure of the 1950s.

River Torrens Linear Park

The opportunity was taken during construction of the busway to significantly upgrade the surrounding Torrens River valley. Environmentalists had been concerned that the busway (or tramway), with its many river crossings, would destroy the valley.

Work commenced in 1982 on a flood mitigation programme. The river was gradually reshaped and cleared of debris, weeds and unwanted growth. Thousands of new trees and shrubs have been planted and public access has been greatly improved. The busway was lowered along its

whole length to reduce the noise and visual effects. In its editorial on 28 February 1986 the *Adelaide Advertiser* stated:

"The fact is that in creating this transport corridor a large area of the Torrens Valley has been cleaned up and meticulously landscaped at a cost of about \$5 million. Even many of the earliest and most ardent dissenters have since conceded that what has emerged is truly scenic."

The Future

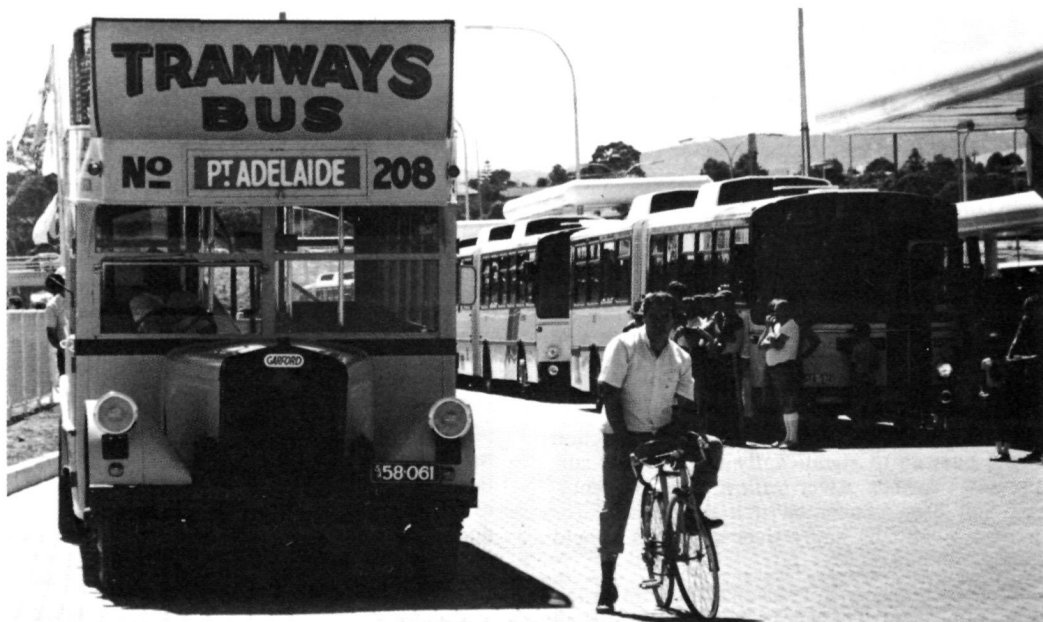
The first part of the \$97 million busway was officially opened on Sunday 2 March 1986 with regular commuter use commencing one week later. In world terms it is still regarded as an experiment. It proved very popular with the public during two months of novelty rides and now must prove itself in its mass transit role. The *Advertiser* editorial quoted above also stated:

"The North East Busway will be a trial: for the O-Bahn system itself, and as an initiative aimed at providing a viable, effective answer to community transport needs, particularly in the outer suburbs."



A line of O'Bahn buses at the Paradise Interchange following the official opening of the North-East Busway on 9 March, 1986.

JOHN RADCLIFFE



South Australia's Deputy Under Treasurer, Mr Peter Emery poses on his bicycle alongside the State Transport Authority's restored 1926 Garford bus at the official opening of the O'Bahn Busway on 9 March, 1986. Mr Emery had come along to check on his investment!

JOHN RADCLIFFE

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Victor Harbor Horse Tramway

By late April Mr Dud Bunker, the Clydesdale horse breeder, farrier and horse handler, who has moved with his family to work on the Granite Island Tramway, was training the tram horses along the new route.

Five horses are presently attached to the tramway stables, Faith, Hope, Charity, Helga and Paul. Charity is Faith's six month old foal. Each horse only requires three days of training to learn the 1.8 km route, overcome fear of the water under the causeway and become familiar with hikers walking from Victor Harbor to the Island.

A four wheel gangers railway hand car has been used as a training trolley along the tramway.

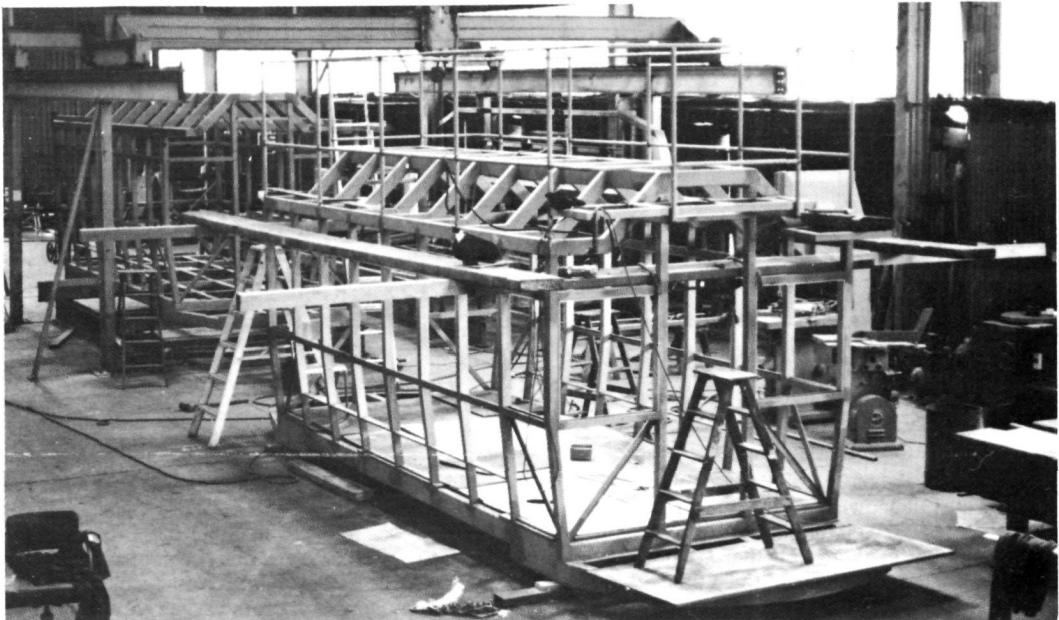
A visit by Lee Rodder to the fabrication shops at Birkenhead, Port Adelaide, on 16 April revealed that construction work was proceeding at a satisfactory pace on the four new horse cars for the project.

The framework of one car was nearing completion, the lower deck saloon of the second vehicle was well advanced while the chassis construction of the other two tramcars were underway.

Axle boxes and pedestals closely resemble the design under the SAR horse tramcars of 100 years ago, but closer inspection revealed that these have been fabricated from steel plate and not cast, while roller bearings and not brasses are concealed in the axle boxes.

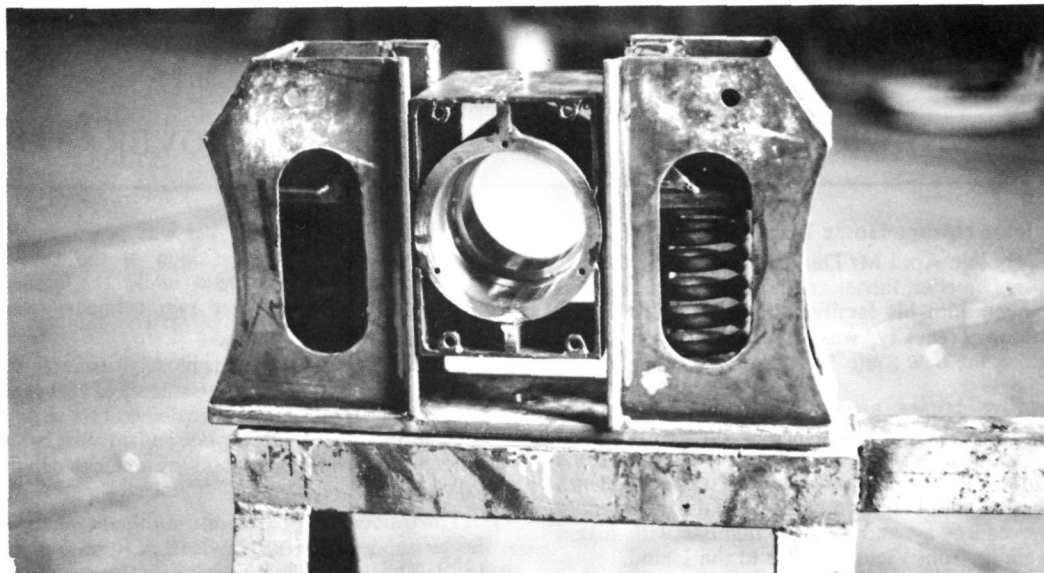
The tramcars are based on the John Stephenson design imported for the Gawler S.A.R. tramway in 1879. These are double deck vehicles with eight window saloons, similar to the standard Melbourne cable tram trailers. The open upper deck is reached by two seven step staircases located at each end of the car.

By late April, it was hoped to commence operations by 17 May, but the latest reports suggest that this has been postponed until 14 June.



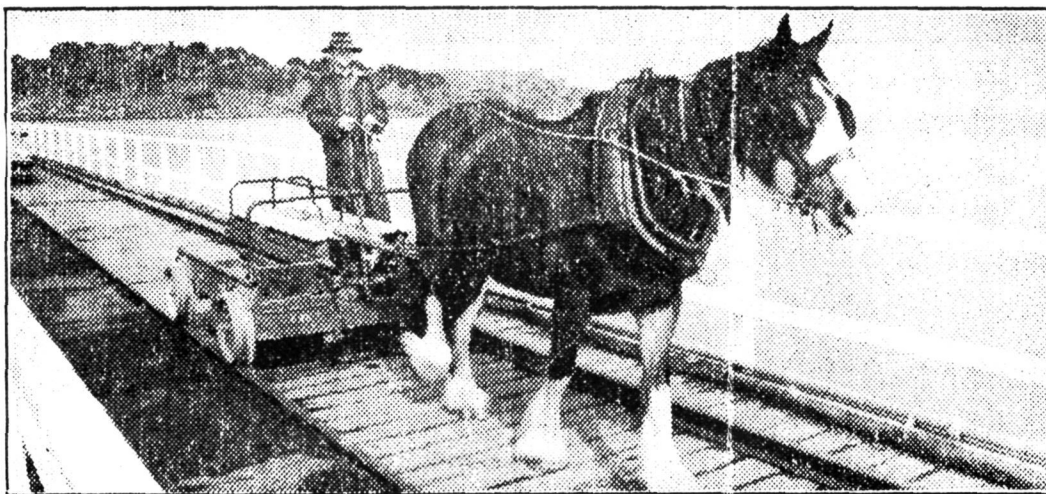
The first of four new horse cars under construction for the Victor Harbor to Granite Island tramway, 16 April. 1986.

LEE RODDER



A new axle box assembly fabricated from steel plate to resemble the standard cast iron design of 100 years ago.

LEE RODDER



Clydesdale breeder Doug Bunker with a training car being pulled along the Granite Island causeway by Faith.

COURTESY "THE ADVERTISER"

New Depot for Glenelg Tramway

Construction of the new Glenelg Tramway depot at Glengowrie (near the Morphetville Racecourse) is well under way. Workmen are finishing the cladding of the main barn and overhead wiring is expected to be erected in June or July. Transfer of operations to the new depot will depend on conversion of the trams and existing overhead for pantograph collection. This is expected to occur in August or September.

The new depot is a long-rectangular shaped building which stands alongside the Sturt River at right angles to the Glenelg tramline. Access to the depot will be made from either direction from the Down track. A crossover has been installed on the Glenelg side of the Sturt River Bridge to enable cars from Glenelg to cross to the Down track and enter the depot. The access tracks cross Maxwell Terrace and converge into a single entrance track before dividing into a depot fan of four tracks.

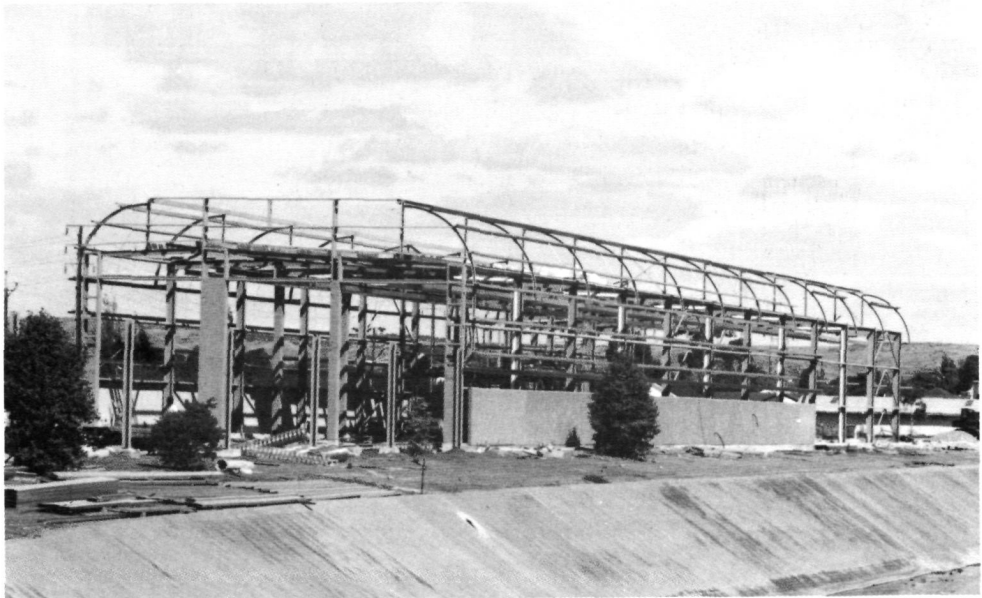
Road 1 runs alongside the depot before entering a washing bay. Road 2 enters the depot and extends to the workshop. It ceases at this point but recommences on the far side of the workshop. Roads 3 and 4 run right through the depot. All four roads converge into two storage sidings at the rear of the depot.

Under cover storage will be available for seventeen trams at the new depot. Twenty-three trams are maintained under cover at the present City Depot in Angas Street.



The view from Maxwell Terrace as work progresses on both track and building construction at the new Glengowrie tram depot.

JOHN RADCLIFFE



A view of the new depot building on 10 March 1986. The Sturt River, which at this point is a concrete lined stormwater canal, is in the foreground.

BOB MERCHANT

Kiama Locomotive Trust — Kiama Heritage Light Rail

On 17 April the 2ft gauge John Fowler locomotive (0-4-OT 16089 of 1923) was transferred from the Albion Park Museum of the Illawarra Light Railway Society to Kiama for display during Heritage Week.

On Sunday, 20 April this engine was placed on display at Hindmarsh Park, its first appearance in Kiama for 30 years. On that occasion over 5,000 people visited the Park and adjacent areas to buy items from stalls, view displays and visit the restored quarrymen's cottages which attained their centenary in 1986.

Traction engine rides around the Kiama Harbour park as well as street trips in horse drawn vehicles proved popular attractions.

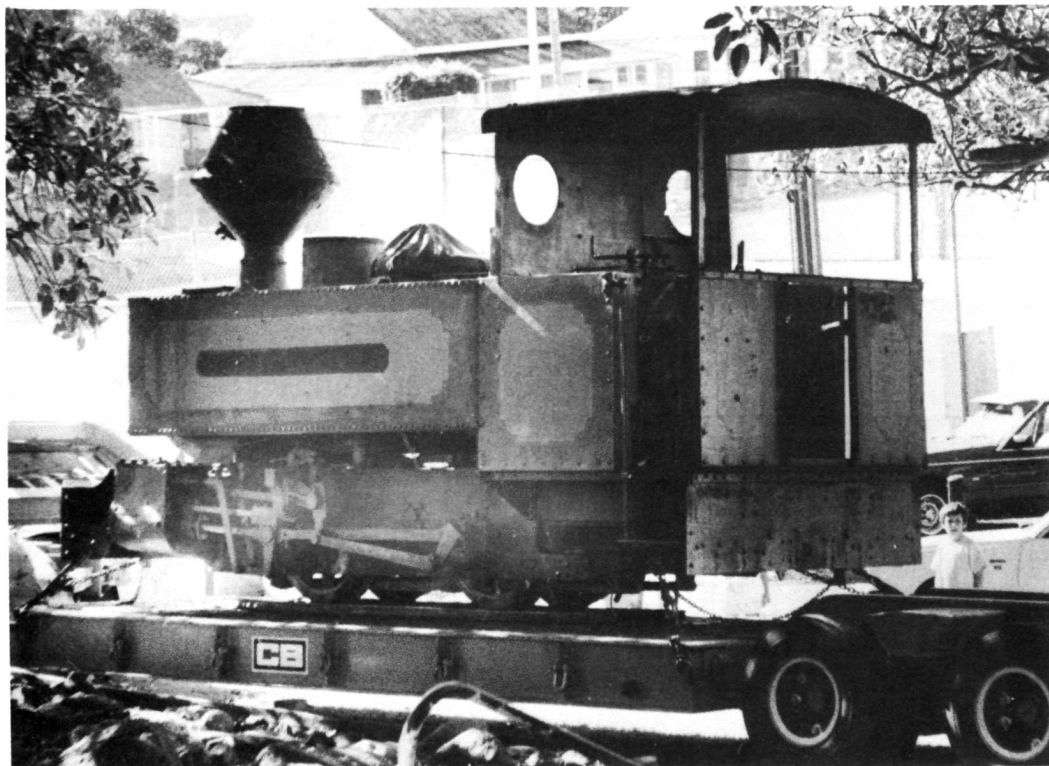
The Kiama Heritage Light Rail Group presented a very interesting exhibit of artifacts and large photos of the 1886 council steam gravel tramway and the more successful 1914-1941 PWD-Quarries Ltd. 2ft gauge undertaking.

In addition to the Robinson Basin-Showground-Surfing Beach route of the proposed 2ft

gauge tramway, it is now possible that a single track along the original Terralong Street route as well as a branch line to the restored terrace houses precinct may be approved in due course. This last named location was featured in artwork on the Heritage Week supplement in the "*Kiama Independent*" for 9 April, while additional artwork on a poster prepared to promote the tramway scheme depicts the Fowler loco hauling passenger cars around the Manning Street-Terralong Street corner at the Post Office.

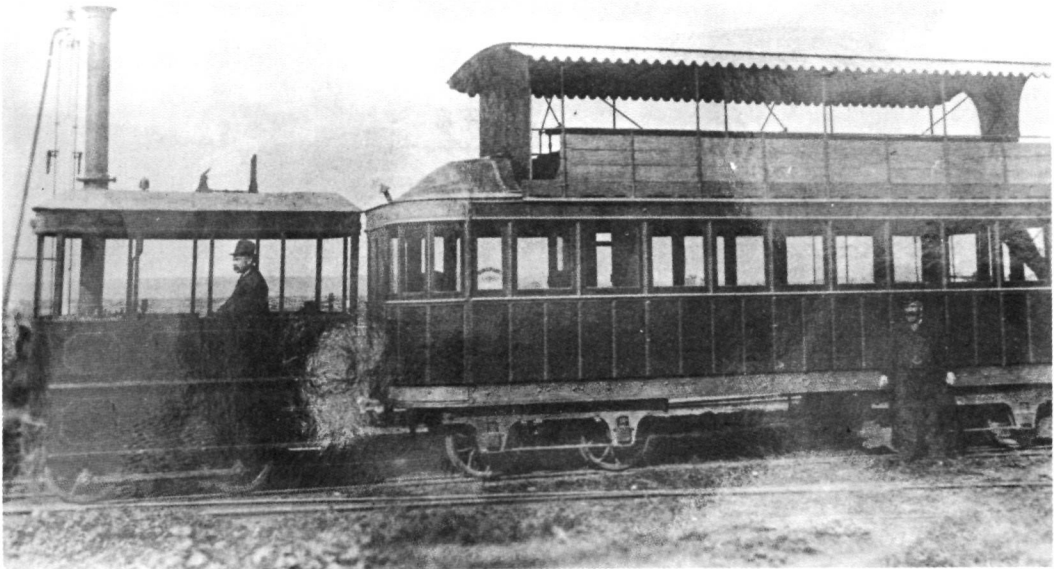
The original proposal suggested a route from Robinson Basin to the terrace cottages but the alignment of the State Rail trestle bridge across Shoalhaven Street made this difficult. State Rail Authority now intends replacing the decaying trestle structure with a new concrete span which now removes the engineering difficulties blocking this route.

A formal Development Order is now being prepared by the Kiama Heritage Light Rail promoters for Council and Lands Department consideration. In the meantime the John Fowler locomotive is now housed under cover in a workshop in Kiama.



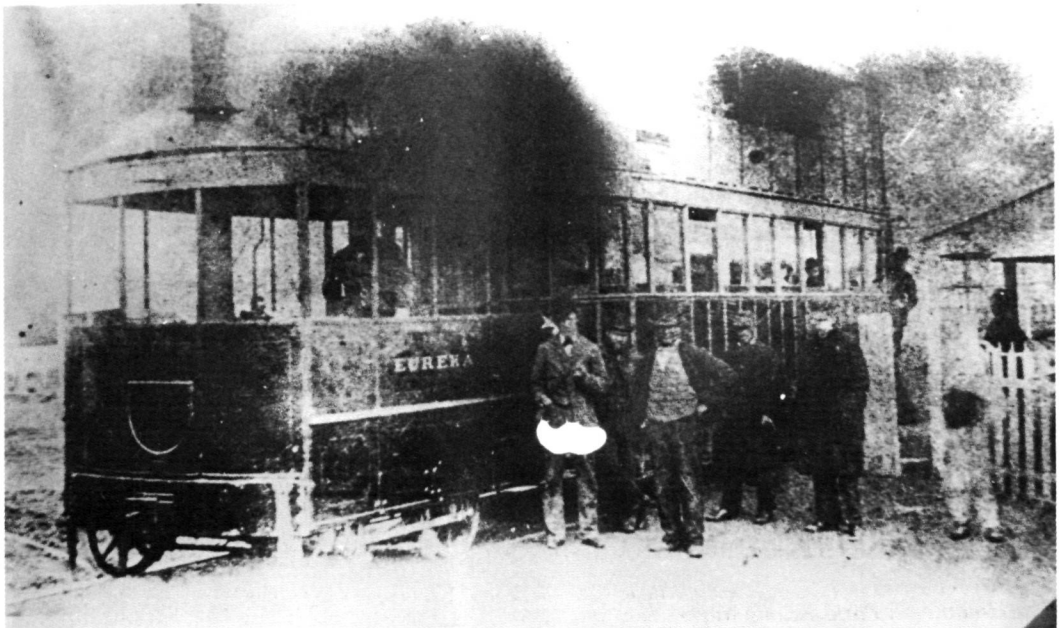
John Fowler 0-4-OT 2ft gauge locomotive (B/No.16089 of 1923) on display at Hindmarsh Park, Kiama during Heritage Week on 20 April, 1986.

KEN McCARTHY



These photos are unfortunately of poor quality but they show the 0-4-0 steam motor "Eureka" (Merryweather No. 80 of 1878) on the Adelaide to Glenelg railway circa 1895. This 5ft 3 in gauge steam tram motor was used on the Port Adelaide horse tramway from 1879 until 1882 when it was sold to the Glenelg Railway Company to work a suburban service from Victoria Square to Goodwood. In this service the motor hauled the former Glenelg and South Coast Tramway Coy Kitson combined steam car as a trailer. The motor was withdrawn in 1900. It is proposed to construct an identical replica steam motor, powered by an internal combustion motor, to work the new double deck Victor Harbor tramcars on the long run to Goolwa.

KEN MAGOR COLLECTION





To mark one hundred years of street public transport services in Brisbane in August 1985, the Brisbane City Council Transport Department painted several buses in liveries which resemble early tramcar schemes. Volvo 813 is painted in the early 1930s scheme of chocolate, biscuit and cream with red aprons. It is pictured in Gregory Terrace during the Brisbane Exhibition.

PETER BURDEN

Volvo 794 appears in the brown and red colour scheme which appeared on combination cars. It even carries the 'Brisbane Tramways' lettering which was applied to the tramcar tumblehome panels. 794 is seen at the corner of Sefton Road and Alexandra Road, Clayfield on 21 September, 1985.

PETER BURDEN



FERNY GROVE ...



Brisbane Tramway Museum Society

At last the Brisbane Tramway Museum was re-opened for full public operations on Easter Sunday, 30 March 1986, capping off what has been an exciting and hectic six months.

Baby-Dreadnought 99

In November 1985, 99 was re-presented to the BTMS by the Brisbane City Council, who had restored the tram at the Toowong Bus Workshops of the BCC Transport Department. At the presentation the Lord Mayor, Sallyanne Atkinson, announced that the City Council had allocated a further \$75,000 for tram and historic bus restoration in the 1985-86 financial year. She also announced a fund raising appeal, mainly directed at companies and businesses dealing with the BCC. The proceeds of this appeal are being channelled into new track construction.

Ten Bench 65

At the closure of the re-presentation, tram 99 was loaded onto the City Council's low loader and taken out to the Museum where 65 was waiting to be taken to the Toowong Workshops for partial restoration. In the week before Easter, 65, resplendant in its freshly painted brown, cream, grey and red colour scheme, was returned to the Museum, where the gold lining was applied. Both 99 and 65 have had structural repairs done while

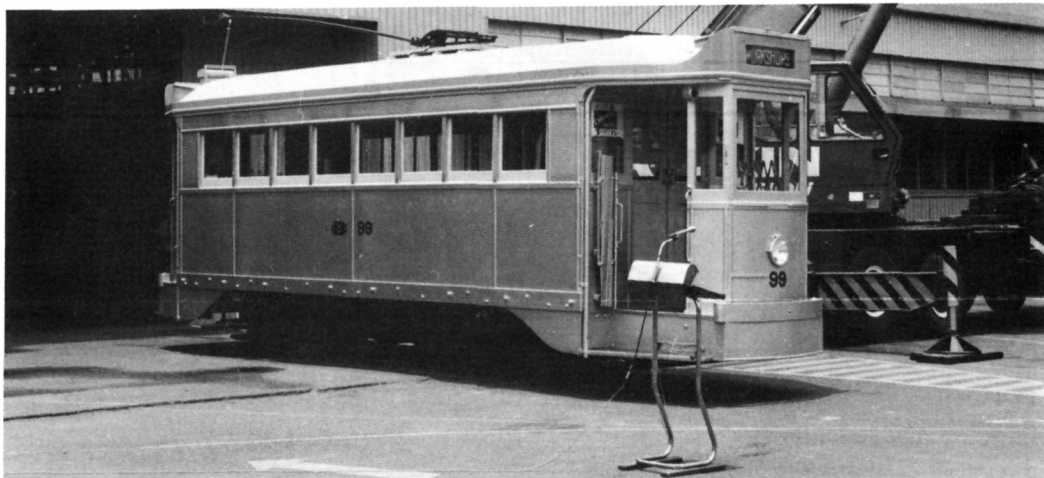
at Toowong: 99 had the timber frame of one platform replaced and 65 had its front apron straightened. Both 99 and 65 are now in regular service. Plans are underway for the restoration by the BCC of a double bogie tram, probably 429, although the greater length of the cars presents difficulties at the cramped Toowong Workshops. The BTMS wishes to thank all the employees of the BCC Transport Department who have helped in the restoration programme.

Gregory Terrace Trackwork

Readers of *Trolley Wire* will recall that a few years ago the BTMS removed some of the tram tracks still exposed in Gregory Terrace at the Showgrounds. Earlier this year, the Brisbane City Council removed the remaining track and delivered it to our site. Included in the haul was a set of right-hand points. The removal of this track means that the only trackwork still exposed in Brisbane is the 300 metres of concrete track at Belmont.

Museum Developments

Early in the year it was decided that we would have to be operational again by Easter. The work that still had to be done was considerable: 40 metres of track to be properly laid and concreted, 100 metres of overhead to be erected (half of it on a rather tight curve), earthworks and grounds



Baby centre-aisle car 99 stands outside Toowong Bus Workshops prior to the presentation ceremony.

T. THOMAS



The presentation of newly restored baby dreadnought 99 to the BTMS at Toowong Bus Workshops on 14 November, 1985. From left to right are BTMS President Tim Atherton and Vice-President Peter Burden, BCC Transport Manager Bill Coles, Lord Mayor of Brisbane Sally-Anne Atkinson and, at the microphone, BCC Transport Committee Chairman Alderman Orme Olsen.

T. THOMAS



The arrival of 99 at the Museum. Ten bench 65 waits further up the track for transport back to Toowong Workshops for restoration on 14 November, 1985.

T. THOMAS



Two former Brisbane City Council buses, Daimler 165 and Albion 67, were added to the Museum collection recently. The Daimler with Peter Burden (left) and Albion with George Bellert pose on arrival at Ferny Grove from the Bulimba-Gibson Island Bus Service at Cannon Hill.



The Society's AEC Regal Mk III bus No.80 at Toowong garage following its restoration by the Brisbane City Council Transport Department, 11 August, 1985.

P. BURDEN

TROLLEY WIRE

beautification and the usual maintenance on the cars.

Trackwork

The track from the temporary terminus up to the workshops points was laid, levelled and set up on concrete buns by mid January. A layer of ballast and drainage pipes were then placed at the base of the excavation under the still open track. Track bonds and boxing for the 18-inch concrete shoulders was then completed. Finally, just before the pour on a hot day, the track was tack welded together.

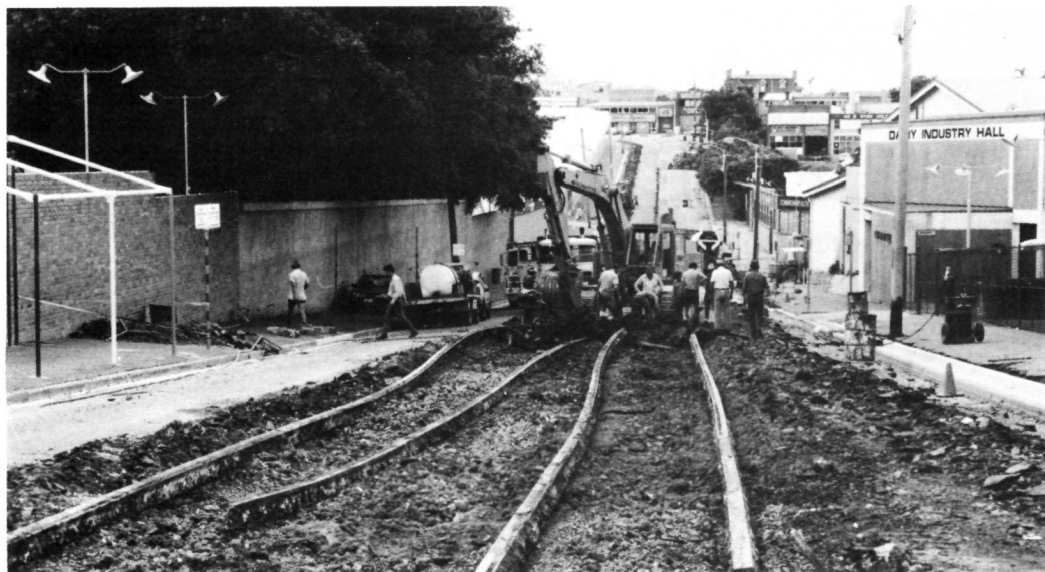
The concrete was poured in two hits, first on 1 February then on 8 February. It was only 7 weeks to Easter! An additional set of left-hand points was incorporated into the design, for a future extension into our proposed display hall. Unfortunately the points were not the easily maintained Hadfield type points, but the more troublesome Edgar Allan & Co type, whose blade units have a habit of seizing solid. After considerable effort the tongues were removed and cleaned down. They will need re-shimming but the trams are able to operate over them

Overhead Construction

It was 5 weeks to Easter and the trolleywire was not up. Visitors to the Museum said there was no way we would be open by Easter. We perserved. The first thing done was to devise a clear and detailed plan of the construction so that we could do as much of the overhead in pieces on the



The covering road surface was scraped away before the tracks were lifted in Lower Gregory Terrace. This was how it appeared on 29 October 1985.
P. BURDEN



The removal of the tramlines in Gregory Terrace which served the Brisbane Exhibition Grounds on 29 October, 1985. The reclaimed rail was transported to Ferny Grove for use on the Museum tramway.
P. BURDEN

ground, in the workshops. The curve was, naturally enough, the most complicated area of the overhead, made even more difficult by the awkward positioning of the poles.

The curve required 5 support wires and 15 single pull-offs. Because of the tightness of the curve it was decided to erect a running bridle wire parallel to the trolley wire. The final plan required over 220 terminations and members became quite skilled at wrapping the ends of the wires using specially built terminating tools.

Finally on Good Friday afternoon the overhead was completed and 554 was slowly driven under the new overhead and on to the new track. Two days later we were open for business.

Grounds

The grounds have been attended to, with new garden beds, turf laid and old piles of bricks and rails removed. On 9 February a large clean-up resulted in the removal of 15 cubic metres of rubbish from the site.

The museum's ever-expanding bus fleet has been re-arranged with the buses now facing outwards towards tramway street.

Operations

A number of changes were introduced with the Easter re-opening. A new fare structure of \$3 for adults and \$1 for children for 5 rides was

established, with new tickets printed. In addition to tram rides, rides on bus 80 are also available. The bus does a circuit through Ferny Grove to the railway station (co-ordinating with the train service) and back to the museum.

Members of other tram museums are reminded that they can obtain free admission only with the production of a current membership card for their particular museum. Present your membership card at the museum entrance and you will be given your admission ticket.

Halley's Comet Night

Late in March the Lord Mayor announced that Brisbane would be "blackened out" on 13 April for everyone to have a chance to see Halley's Comet. But 13 April was also the 17th Anniversary of the closure of the tramway system, so the BTMS planned something special. Members were invited to an anniversary dinner held at the museum. Nine trams were taken out of the depot and lined up along the track — 47, 65, 99, 277, 554, 300, 400, 429, 494 — all with their lights on. As darkness fell the trams became more spectacular from the distance and traffic along Samford Road and McGinn Road slowed as people stopped to have a look. Fireworks and an impromptu cameo appearance by our President as Wanda the Wicked Witch from the West (or was it the witch from Shakespeare's Macbeth?) capped off a very enjoyable evening.



Newly restored ten bench open car 65 in service at the Museum.

I. MARTIN

ST. KILDA . . .

Australian Electric Transport Museum



Royal Visit

Imagine AETM President Paul Shillabeer's surprise when handed a letter in December 1985 seeking the Museum's participation in the 1986 Royal Tour of South Australia. It had been planned for His Royal Highness, the Duke of Edinburgh in his capacity as President of the World Wildlife Fund, to visit the St Kilda Mangrove Boardwalk on Tuesday, 11 March, 1986. However, it is believed that on being shown over the planned route, one of Her Majesty's tour organisers noticed some of our trams and suggested a tram ride be included as part of the visit to St Kilda.

Suitable arrangements were made in consultation with the State Director of the Royal Visit, Mr John Holland, and security officers, a number of whom visited the Museum on several occasions before the big day. Security requirements dictated that attendance would be restricted to AETM members and their families, Councillors of the City of Salisbury and the press.

Tuesday, 11 March, 1986 turned out to be fine and sunny, and much shunting was required to strategically place our trams on the depot fans. The trams took up the following positions:

- Road 2 — 264 and 1
- Road 3 — 42
- Road 5 — 34 and 192
- Road 6 — 294 and 282
- Road 7 — 111 and 381
- Road 8 — 362 and 303

Security officers almost outnumbered visitors and one was observed perched on our ex-MMTB tower wagon which had been placed in a strategic position.

H.R.H. Prince Philip, Duke of Edinburgh, arrived just after 2.30pm and was introduced to the Mayor of Salisbury, the City Manager and AETM President Paul Shillabeer. Paul introduced Prince Philip to our Executive Committee and proceeded to show the Duke some of our trams, including those under restoration. Quite unexpectedly (and unplanned) the Duke headed for and entered the workshop. It appears he wished to see where the work was carried out, and was suitably impressed — a sigh of relief for President Paul!

Paul then invited the Duke to ride with him in the motorman's cabin of Car 1. The original keys and controllers used by Mrs Tom Price, wife of the then Premier to inaugurate electric services on 9 March 1909 were produced from our archives for use on this special trip. Special tickets were presented to the Duke and members of the official party who then boarded car No. 1. The remaining guests and the press followed in car 282.

The Duke very quickly took over the controls from Paul and drove car 1 to a position in the township near Mangrove Street — no easy task as anyone who has turned its handbrake wheel will



Members of the AETM Executive Committee being introduced to His Royal Highness by Paul Shillabeer.

JOHN RADCLIFFE

tell you! In fact the Duke rather surprised Paul by asking if the car had rheostatic brakes!

The big event was well covered by the media. Our tram museum was shown on four television channels, in one daily newspaper and in two suburban papers.

A final word — when most of the trams had been put away after the visit, a couple of members decided to take No. 1 for a spin to Mangrove Loop and back. On the return journey they were passed by the Royal cavalcade returning from the Mangrove Boardwalk. The Royal car slowed right



H.R.H. Prince Philip is directed to car No. 1 by Paul Shillabeer. In the background are the two trams currently being restored, car 264 (left) and car 42.

JOHN RADCLIFFE



The Duke prepares to take the controls of Car 1 for the journey to St Kilda township.

JOHN RADCLIFFE

down and our members received a Royal “congratulatory” wave.

Members of the AETM are proud to have participated in the Royal Visit to commemorate South Australia’s 150th anniversary. Our retiring President, Paul Shillabeer certainly bowed out in a blaze of glory!

Wedding on a Tram

On Saturday, 22 March trams 1 and 111 were used for the wedding of Museum member Trevor Triplow and his wife Wendy. Guests parked at the Museum and were transported to the Beach terminus in cars 1 and 111. Car 1 returned to



Cars 1 and 111 display their special “Wedding Tram” signs. JOHN RADCLIFFE



Trevor Triplow and his lovely bride Wendy sign the register while seated in car 111.

JOHN RADCLIFFE



The wedding ceremony being conducted in car 111.
JOHN RADCLIFFE

convey the bride and matron of honour, while car 111 was set up as a chapel. After the ceremony guests returned to the Museum, several choosing to inspect the exhibits before heading off to the reception.

Car 111 carried a special signboard displaying "Wedding Tram" while car 1 carried a temporary "Wedding Tram" destination sign with an appropriate symbol — two interlocking wedding rings!

A.E.T.A. Convention

The AETM played host to members of the Australian Electric Traction Association as part of their Easter Convention in Adelaide on Sunday, 30 March. The visitors arrived at St Kilda aboard Trevor Tate's bus, former STA "Red Ned" 207 (previously MTT Leyland Worldmaster 909 now in green and white livery). Another of Trevor's buses, an AEC Regal Mk III of 1949-50 in a tuscan and cream colour scheme, was also brought to the Museum.

Normal service trams were ridden during the afternoon while extra trams were brought out after normal operations closed. After tea night rides were provided in cars 111, 192 and 303.

Heritage Sunday

Heritage Sunday, 13 April 1986, was celebrated at St Kilda with a special cavalcade of trams departing the Museum at 2.30pm. The convoy consisted of cars 1, 303, 192 and 282, and attracted much attention from crowds at the St Kilda Castle playground. Radio publicity during the preceding week ensured good crowds.

Annual General Meeting

The Annual General Meeting of the Australian Electric Transport Museum was held on 18 April 1986. A restructure of the executive committee saw the reintroduction of the position of Vice-President and the use of specific titles for all committee positions. The following positions were filled:

| | |
|--|---------------|
| <i>President</i> | Colin Seymour |
| <i>Vice-President</i> | Warren Burt |
| <i>Secretary</i> | Bev Smith |
| <i>Treasurer</i> | John Hoffman |
| <i>General Manager</i> | Ian Seymour |
| <i>Operations Manager</i> | Max Fenner |
| <i>Rolling Stock Manager</i> | Chris Andrews |
| <i>Site & Safety Manager</i> | John Pennack |

Paul Shillabeer retired after a four year term as President. Thanks, Paul, for all the dedication and hard work. Incidentally, the two Seymours on the committee are not related.

Track and Overhead

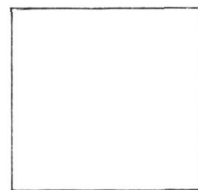
The Gas Pipeline Authority of South Australia is currently laying a second natural gas pipeline through St Kilda to the Torrens Island power station. This has meant that the tramline to the beach has had to be cut between poles 54 and 55 to allow construction to proceed. Members removed the track and cut and tied the overhead at this point during April. The close proximity of the temporary terminus to the adventure playground and carpark made it rather difficult for conductors to change barriers so tramcar operations have temporarily reverted to southside loading only.

Other News

The Executive approved a fare increase (the first since 1981) which came into effect at the start of April 1986. The new fares are \$2.40 for adults and \$1.20 for children and concession. The tickets include unlimited rides and entrance to the Museum.

A cash register has been installed in the operations building, making the task of the ticket seller/book seller much easier.

HADDON . . .



Melbourne Tramcar Preservation Association

Electrification

Work has commenced on running the control wiring, and already the 240 volt A.C. and 600 volt D.C. wires have been run to their respective terminating points. The 24 volt D.C. circuits will be run shortly.

The bus bars for the rectifier stack have been manufactured and installed, and jumper cables from the A.C. contactor to de-ion circuit breaker made up. Thanks to electrical fitter, Craig Tooke, for his assistance in this area.

A battery tray has been manufactured and installed in the substation on which to mount the two 12 volt batteries which will supply our alarm and monitoring system.

Outside the substation, next to the remote operation panel, a mounting frame for a 24 volt mimic display diagram has been installed. The panel for this mimic display diagram is currently

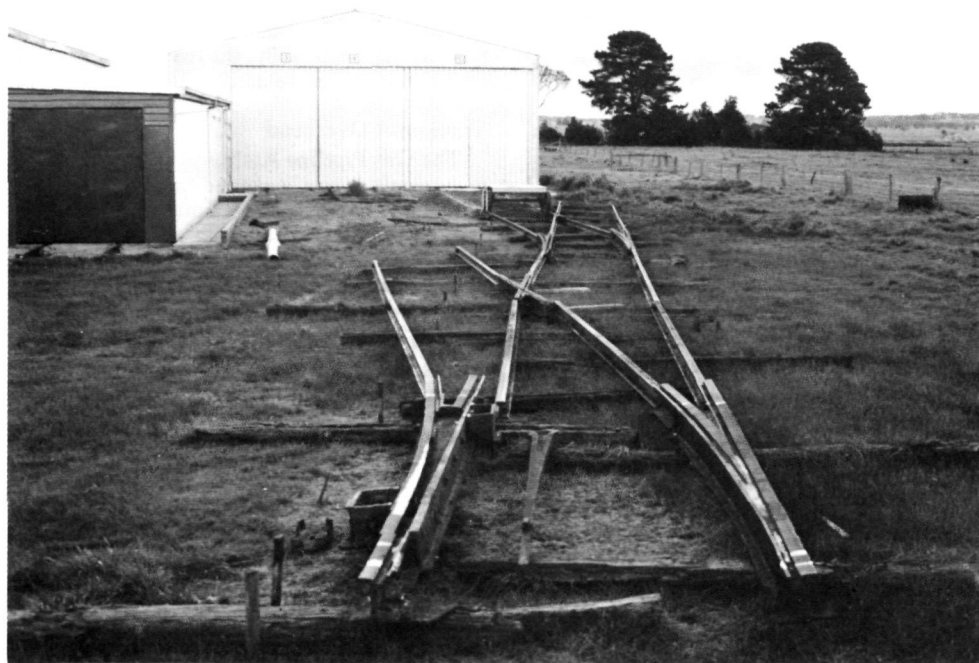
being designed and built by Electrical Superintendent, Noel Gipps. The mimic display diagram will greatly assist in the monitoring of substation operation.

In the car shed, a mounting frame has been installed for a sub-board. This sub-board is currently being manufactured, and will contain D.C. voltage monitoring, switching facilities for the car shed circuit breaker and breaker status indicator lights. Thanks to members John Withers and Arthur Ireland for assistance in panel preparation.

Trackwork

The points leading to the workshop roads have been levelled and welded, along with the mainline lead to the No.4 road points.

The mainline curve around the back of the running shed has been surveyed and location pegs are in place.



View showing points and rail for No. 4 and No. 5 Roads, plus main line lead as laid prior to lifting, welding and concreting, November 1985.

A. SMITH



The mainline curve from the No.5 road points has been concreted and work will now commence on forming up to pour the No.3 to No.4 points area.

General Works

An additional extension lead for the 480 volt welder has been manufactured.

A new water outlet and hose has been provided at the rear of the bus shed and will provide an additional fire fighting point.

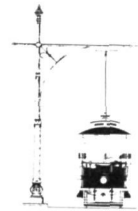
Sorting of our vast spare parts collection continues, and when completed, we will have an accurate record of the location, quantity and condition of each item.

Rail cutting in progress showing members John Withers, Lindsay Bounds and Noel Gipps, December 1985.

A. IRELAND

LOFTUS . . .

South Pacific Electric Railway



New Site

A considerable amount of progress continues to be made at the new site, thanks to the efforts of our regular workforce and the depot connecting line, or ladder track, now extends as far as the site of the points where it will branch from the main line. Although work has not yet commenced on this set of points, some crossing timbers have been placed in position and some of the components have been located nearby.

A start has been made on the re-assembling of the ex-Rozelle Depot scissors crossover, which is being laid on the Pitt Street side of the points leading from the Up Main line to Cross Street and the Depot. Saturday, 3 May saw the pouring of the first section of the concrete slab on which this crossover is to be laid.

Although there has been no further southward extension of the overhead wiring since the first section was erected, Saturday 3 May also saw the erection of troughing and overhead wiring on Road 3 of the carshed and the extension of the wiring to connect to Road 2. This resulted in the erection of our first overhead frog and the first movement of

trams into the shed without the use of the wandering lead.

On Saturday, 5 April, temporary track was laid to connect Road 5 to the ladder track via the diamond crossing, so as to enable car 1111 to be placed on either Roads 1 or 3. Despite a few anxious moments, 1111 made it onto the ladder track and after electrical testing, the pole was raised and it became the second car to operate at the new site. This movement was carried out in readiness for the filming of scenes for a telemovie by the producers of "Caddie", which featured L/P154 at the old site, many years ago. The movie on this occasion is "The Harp in the South" and is to be shown on television later this year. As it is set in Sydney during the late 1940s, some shots of a typical Sydney tram were called for, and what could be more typically Sydney than an "O" car. A more detailed report appears later.

A quantity of steel shelving was recently donated to the Society by Steel Shelving Assemblers Pty. Ltd. and this is to be erected between Roads 3 and 4 of the carshed. For this purpose, concrete was laid between these roads for

a considerable distance on Saturday, 3 May. The shelving will be used to store most of the spare parts which are at present located throughout the carshed and this will greatly improve the appearance of the shed interior.

Sutherland Shire Council, at its April meeting, approved the necessary funds for the construction of the roadbed for the new site and it is hoped that this work will commence by the end of May, to enable work on track construction, which is covered by the C.E.P. Grant, to follow on. At the time of writing, there were a few minor problems to be resolved, in regard to easements across the right of way, matters which we believed had been finalised at least five years ago.

Old Site

Work at the Royal National Park site continues to centre around tramcar maintenance. Richard Youl has been carrying out most of the essential tramcar maintenance work, now that the efforts of other members have been directed towards the new site and he is being assisted in this work by his "trainees", Daniel Finch and new member Christian Wyrzynski.

Bill Lacrosse and his team have been continuing to add the finishing touches to the interior of L/P154 and it should not be long before this car is released to traffic once more.

Off Site

For many years, the Society has had its eyes upon the former North Sydney tram depot as a supply of rail and for all those years we have been negotiating with the Urban Transit Authority and its predecessors.

The depot, after its closure in June 1985, was quickly transformed into the Big Bear Supermarket and the floor of the supermarket was laid directly on top of the rail and pits of the depot. It has undergone several changes since then but we recently learned that the site was to be re-developed, which included the demolition of most of the old depot building.

Unfortunately, the developers moved faster than the U.T.A. and we were not informed that demolition had commenced. It was only due to the quick action of Bob Cowing in negotiating with the demolition contractors direct, that we were able to salvage about 100 metres of rail. The remainder went to the tip. It was estimated that there was about one kilometre of rail inside the depot. It is possible that we may obtain a little more but nothing like 900 metres.

It was most fortunate that our regular backhoe contractor, Alex Cannini, was able to render invaluable assistance in hauling out the rail as it was de-spiked, otherwise our 100 metres of rail would have been considerably less.

Off Site Restoration Projects

Trolleybus 19

The top deck of the trolleybus is now permanently in position, with upper and lower deck flooring and the two stairwells have been completed.

The traction motor, ex-Launceston, has been tested and vacuum impregnated with varnish and has passed all electrical testing and the B.U.T. bogie wheel assembly, ex-Cardiff, Wales, has been fitted underneath the vehicle after slight modifications.

Lighting wiring looms have been made up and new lamp holders have been ordered for the saloon lights.

A switch panel has been made up and one of the resistance banks has been overhauled and the air compressor and governor has been fitted. 24 volt emergency lighting has been installed and one clearance light has been manufactured, using the other one as a pattern.

Cable Trailer 23

Due to the low door clearance in the Automotive unit at Warrawong High School, King Street cable tram trailer No.23 did not return to that restoration site after the "Electrofest Parade" in Wollongong on 15 December 1985. This vehicle was transported to a large shed at the farm of SPER member Ian Saxon at Albion Park.

While at the farm Ian Saxon and Ken McCarthy concluded the final aspects of the restoration of this car which were possible away from the Loftus Museum Tramway.

During Januray 1986 the second transverse seat across the end saloon bulkhead received its slats while the full set of anchor bolts which fasten the axle box guides to the main sills were fitted.

In March the two large internal window frames which provide the envelope into which the end saloon doors open, were constructed and 22 small clerestory window sashes were milled, jointed out and assembled.

Throughout April the longitudinal seats were completed, couplings fitted, and the last of the internal large window sashes located in their final positions.

When Melbourne cable trailer 430 was restored at Albion Park the ILRMS was fortunate in receiving a supply of spare fittings from the Tradesmen's Union Club of Canberra which remained from the restoration of trailer 589. Readers may remember car No. 300 was scrapped to supply parts for both 430 and 589. These spares included brass pivot pieces for clerestory windows, and these have been used on the clerestory window frames in King Street No.23.



Following acceptance trials and driver training, grip car 593 prepares to leave Swan Hill Cable Car Works bound for Sydney on 10 March, 1986. CREENA BOWDEN

On 3 May a new lamp ventilator was fitted to the roof completing the project. The restoration has taken 27 months and approximately \$2,500.

Although now available for limited use, No. 23 requires roof canvas, window glass, as well as the fitting of saloon end doors and brake rigging to return it to the condition in which it appeared from Hudson Brothers on the King Street tramway 92 years ago in September 1894.

Sprague Electric Crane No.548

While awaiting another major project the present Year 11 students undertaking Historic Restoration at Warrawong High School are working on another vehicle from the Sydney Tramway Museum. This is the c1910 vintage battery electric Sprague 1 ton workshop crane.

This old road vehicle, mounted on solid rubber tyres, was delivered from Loftus on 6 March. By the end of April the flooring and battery box had been removed and work was well advanced on cutting back and prime coating the main chassis, restoring and painting assorted metal parts, and reconstructing damaged and rotted wooden parts.

Cable Grip Car at New Site

The February issue of *Trolley Wire* made reference to a replica cable grip car, which was constructed by Mr Newton Williams of Swan Hill, Victoria, for the celebrations to mark the centenary of trams in Melbourne. It is perhaps untrue to call this vehicle a replica, as it is numbered 593, which could have been the next car to be

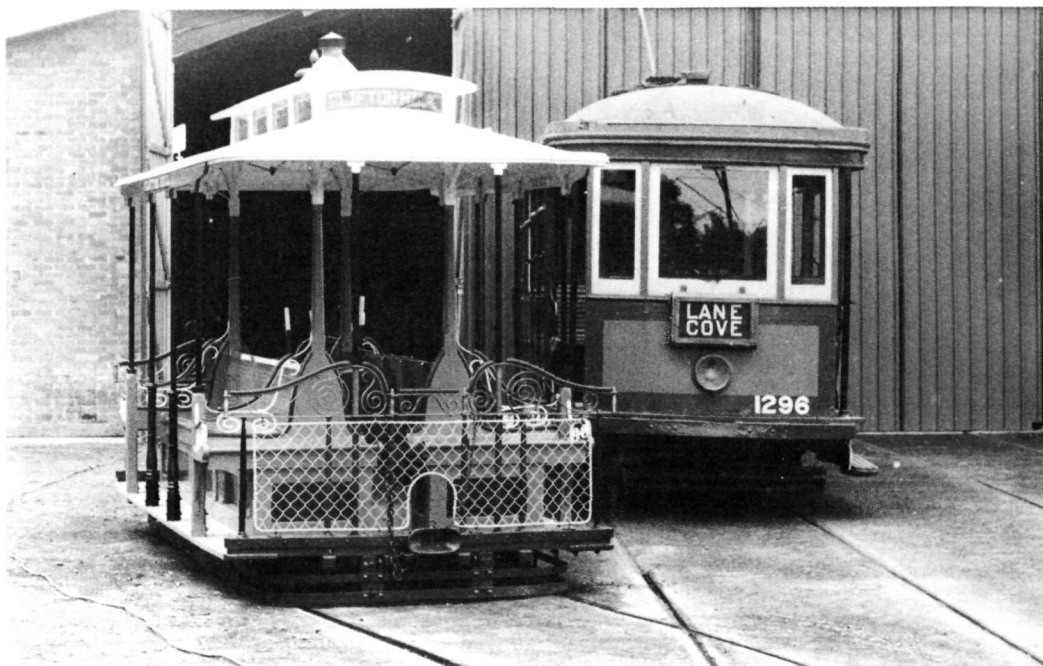
constructed in Melbourne and it is doubtful whether the genuine article would have looked quite as good as No.593. The car is, in fact, a brand new vehicle using original metal parts from various grip cars.

Thanks to the efforts of Ken McCarthy in negotiating with Newton Williams on behalf of the Society and to the generosity of Newton in loaning the vehicle, it is now on display at the new site.

On Saturday, 9 March, Trevor Glenn and his "rubber tyred locomotive" (Toyota Landcruiser), accompanied by Creena Bowden and Bill Parkinson, ventured down to Swan Hill to transport the grip car back to Loftus. Fortunately, as it is some distance away from standard gauge rails at Swan Hill, Newton Williams had the foresight to also construct a special trailer for the grip car, to facilitate such moves.

After attaching the grip car and its trailer (perhaps it could be called a "mini Lizard") and suitably thanking Newton, our trio departed Swan Hill on Sunday, 10 March, arriving at the old site early next morning.

A trial run of the cable grip car at the old site, in preparation for the North Sydney cable tram centenary, showed up the fact that the track is not quite in gauge. The wheel tread on the grip car is extremely narrow and while the track is acceptable for operation of our electric cars, the grip car is prone to derailment. It was later relocated to the new site, where no similar problems were experienced.



*"These new fangled electric trams will never replace the reliable cable cars!"
Sydney K class car 1296 and Melbourne replica grip car 593 in the new Loftus depot
yard on 30 March, 1986.*

KEN MCCARTHY

The purpose of the loan of the car is to participate in the commemoration of the centenary of the opening of the Milsons Point to St Leonards Park cable tramway and Ken McCarthy is arranging a display at North Sydney, in conjunction with North Sydney Council, tentatively planned for 13 September.

It will also participate in a display for the Drummoyne Primary School on the Labour Day weekend in October.

Tramtown Project

At the Annual Dinner on Saturday, 26 April, we had as our guest speaker, Mr Stan Nurthen of the Sutherland Shire Bicentennial Committee, who outlined the various activities planned for the Shire during the bicentennial year, 1988.

Mention was made by Mr Nurthen of the continued interest in the establishment of a project known as Tramtown, described in a publication of the Sutherland Shire Bicentennial Committee as "A tram-era village near the (Tramway) Museum, using relocated buildings once threatened by development".

The report also stated that "Tramtown would give accommodation to the many arts and crafts groups in the Shire as well as acting as a setting for the trams".

It was originally planned for the project to be established on the Sutherland side of Pitt Street, subject to negotiations between the Council and the Education Department. However, the latter department has decided to erect a College of Technical and Further Education (TAFE) on the site and it was then necessary to consider erecting Tramtown on the adjacent site, which has been set aside for a hospital.

A public meeting to form a project team to investigate and promote this project is scheduled for May 1986.

Previous plans for Tramtown envisaged our tramway running through the area, which could mean that our depot connecting line would be extended across Pitt Street, alongside the railway boundary and through Tramtown to connect with the main line at approximately the site of Waratah Loop.

The establishment of Tramtown would complement our own project and surely attract large numbers of people who would not normally visit the area just for the trams and we eagerly await news of further developments in this regard.

The Sydney of 1948 Comes to Loftus

The depot yard at New Loftus was a scene of frenzied activity on Wednesday, 14 May when street scenes for the Channel 10 TV mini series of



Gwen Plumb, a veteran of stage and radio, plays the grand old Irish pipe-smoking character Grandma Kilker in the mini-series. Gwen poses in front of car 1111 in the new depot yard at Loftus on 14 May, 1986.

KEN MCCARTHY



Vintage cars share the Crown Street scene with tramcar 1111 during the filming of "Harp in the South" at the Sydney Tramway Museum on 14 May, 1986.

BOTH KEN MCCARTHY



These terrace houses in Crown Street were recreated in the Loftus depot yard. This scene was clearly visible from passing Illawarra trains and caused many a commuter's head to turn! KEN Mc CARTHY

Ruth Park's novel "Harp in the South" were filmed.

The novel is based on life in Sydney during the immediate post World War II period. Most of the action is set in the inner suburb of Surry Hills and the segments filmed at Loftus called for tram and double decker bus activity.

The New Loftus depot yard location was selected due to its security behind a chain wire boundary fence. Work commenced on the erection of several terrace house facades earlier in the week and by Wednesday morning a small section of Crown Street of the 1940s had been recreated.

The construction team had provided a "Riley Street" street plate and a green tram stop post, but as trams never traversed Riley Street the plate was soon replaced by a "Crown Street" plaque and the museum supplied a genuine red Tram Stop post!

By Wednesday afternoon the depot yard was crowded with a "cast of thousands" or hundreds as the daylight street scenes were rehearsed and filmed. The nighttime scenes followed after 6pm when double decker bus MO.2619 bound for Dolls Point joined "O" class tram 1111 carrying the destination "West Kensington via Crown Street" in heavy traffic scenes.

Prewar Dodges and Fords hurried across the street scene narrowly missing being hit by the tram and bus. One scene depicted New Year's Eve revelries . . . the actors had shed their heavy coats, in this Loftus early winter chill during the filming, to create the atmosphere of a humid mid-summer scene.

Norm Chinn was responsible for driving "O" 1111 while Bill Parkinson controlled the double decker bus. Conductors Col Rhodes and Peter Kahn completed the picture, all in uniforms of the 1940s.

The museum's plans to establish a permanent tramway street at the new museum site was welcomed by the film producer . . . due to heavy traffic conditions and unsympathetic modern street hardware now appearing in otherwise vintage neighbourhoods in the inner Sydney area, on-site filming is now becoming too expensive. He suggested that the building facades in the proposed tramway street should be designed so that a variety of awnings, shop fronts and balconies can be bolted to the structures to create various architecture periods.

For the next month or two Peter Kahn will be beardless while Bill Parkinson is sporting a "short back and sides" genuine 1948 hairstyle!

