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- A Tale of Three O Cars

# TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM  
MAGAZINE

AUGUST 2013

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*Anyone for tennis? Katie Strancar strikes a pose on  
centenarian K 1296 at the Sydney Tramway Museum.  
This photo appeared in the Good Weekend supplement  
of the Daily Telegraph on 29 June 2013. It illustrated  
an item about the museum's K car centenary*

Martin Pinches

## Front Cover:

*Ballarat horse tram No. 1 waits for passengers on Mother's Day, 12 May 2013. As in previous years, the Ballarat Tramway Museum was invited to participate in the heritage weekend activities. However once again the weather refused to co-operate. With the main focus of the weekend being downtown rather than the Gardens, patronage was poor.*

Roger Gosney

# ACROSS THE BRIDGE – OR NOT?

*The saga of trams on the Sydney Harbour Bridge*

By Dale Budd

## Introduction

Everyone knows that trams crossed the Sydney Harbour Bridge from 1932 to 1958, using the rail tracks on the eastern side that would not be needed for trains until the planned later building of a railway to Warringah.

Less well known is that the proposal for trams to cross the bridge was mired in controversy during 1929, 1930 and 1931. Newspaper readers were treated to headlines such as

**BRIDGE TRAFFIC.  
Should Trams Cross?  
RIVAL AUTHORITIES CONFLICT.  
RAILWAY COMMISSIONERS' CASE**

Firm and final decisions were made, only to be overturned in response to public pressure or revisited in response to bureaucratic infighting. This article tells the story of how north shore trams eventually came to reach the city, and it reports on a number of related topics.

## A preamble: the name of a railway station

Before dealing with the main issue it will be helpful to recount another controversy, about the name of the railway station on the northern approach to the bridge. From its opening its name has been Milson's Point, but while the bridge was under construction this station was planned to be called Kirribilli. The intention to give it this name dated from 1913 or earlier.

On 24 January 1932 a petition bearing more than 4000 signatures was presented to the Minister for Public Works by a deputation of North Sydney residents, and supported by North Sydney Council. The petitioners objected to the proposed name of Kirribilli, saying that it would be confusing; that Milson's Point had been the gateway to the northern suburbs for more than a century; and that the spot which gave rise to the name Kirribilli was more than a mile away. The Minister, Mr Davidson, said that the name Kirribilli had been decided some time ago and that a change would cause delay and additional cost. Nevertheless he promised to confer with Dr Bradfield, the bridge's chief engineer, and with the director of works.

Almost two weeks later on 5 February the Broken Hill *Barrier Miner*, an unusual source of information on such matters, reported that the controversy was "settled yesterday" when plates bearing the name Kirribilli were affixed to the station entrances. Perhaps this report was factually correct, but on 8 February it was announced that after reconsideration it had been decided to "substitute the name Milson's Point for that of Kirribilli station". Later that month in announcements about government tenders the station was being referred to as 'Milson's Point (late Kirribilli)' so that there could be no confusion about the change of name.

Because of the many references in documents and newspaper reports of the time, it will be convenient throughout this article to refer to the station by its anticipated name during this period, i.e. Kirribilli; and the names Milson's Point and McMahon's Point will be spelt with apostrophes, as they were in that era.

## Should trams cross?

North shore tram travellers had long been entitled to believe that when a harbour crossing was built, it would be used by trams. The operation of trams across the bridge – or under the harbour in a subway - had been contemplated for many years.

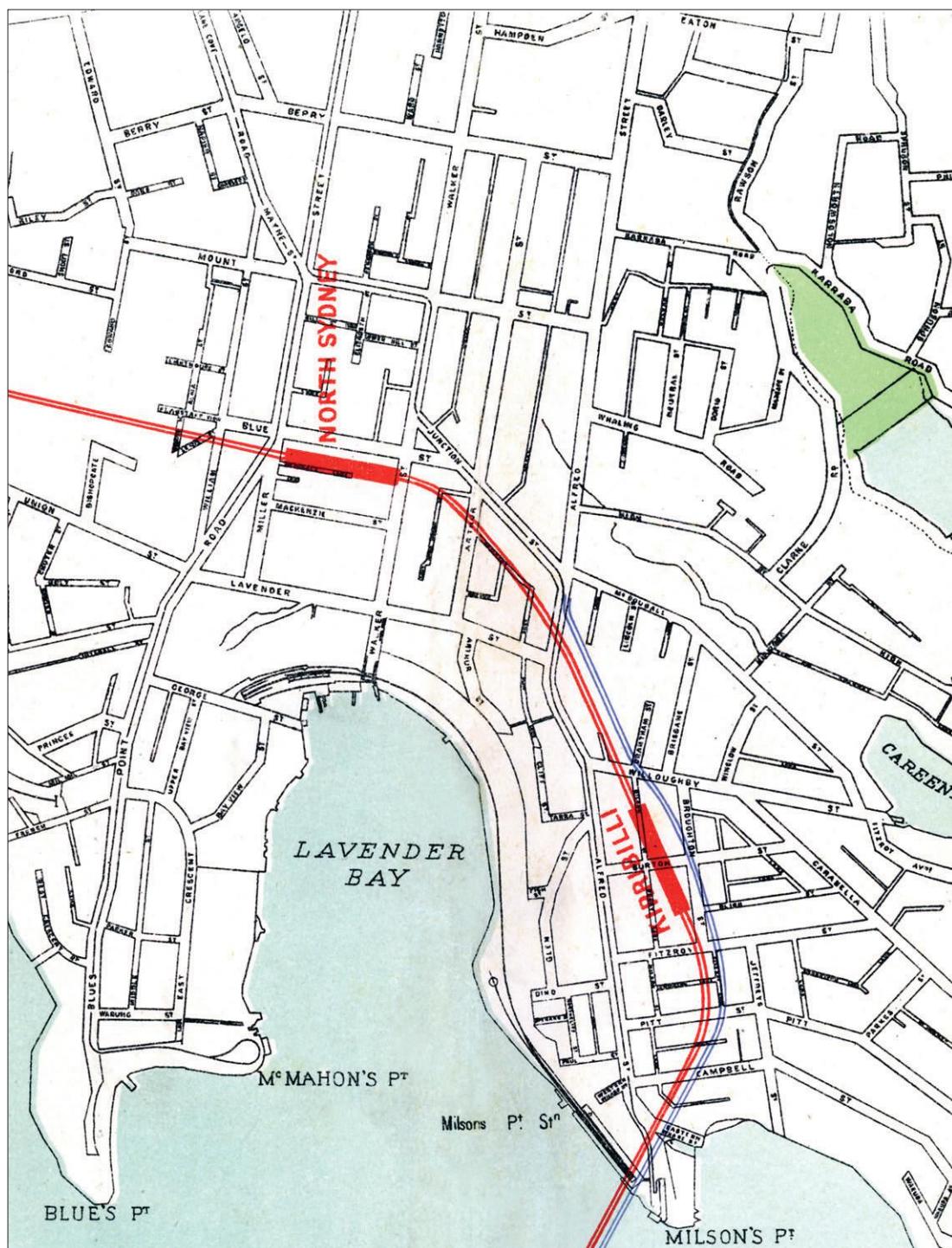
There had been many proposals for a harbour crossing over the past decades. Most of them provided for its use by trams, although some anticipated a network of electric railways on the north shore which would largely supplant the trams.

In his definitive 1915 *Report on the Proposed Electric Railways for the City of Sydney*, which included plans for a bridge across the harbour, Dr Bradfield<sup>1</sup> envisaged the use of the eastern tracks for trams temporarily or probably permanently, as two railway tracks could carry all the expected traffic. The report stated that "public opinion would not allow the

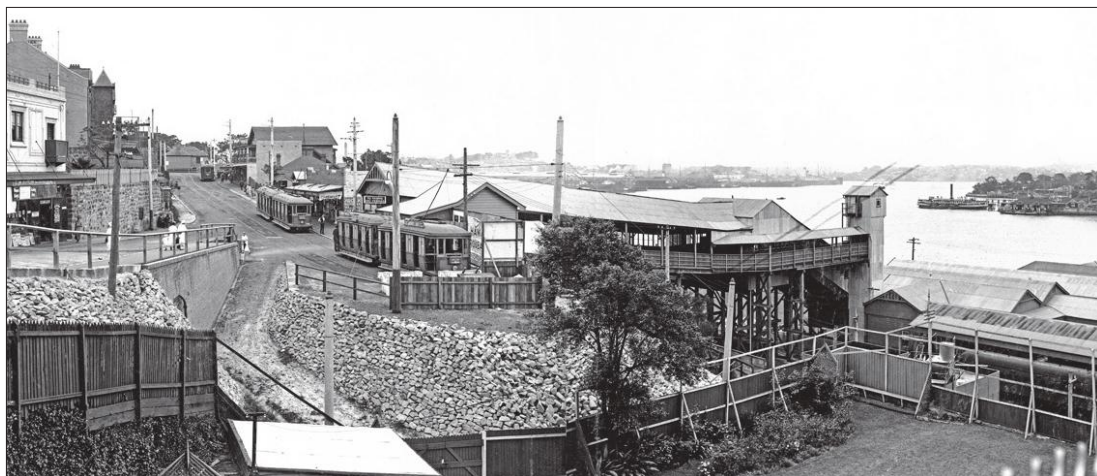
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<sup>1</sup> J. J. C. Bradfield was awarded a Doctorate of Science in Engineering in 1924. In this article he is referred to throughout as 'Dr Bradfield'. In 1915 he was Chief Engineer, Metropolitan Railway Construction, in the Department of Public Works.





This is part of a map included in Dr Bradfield's 1915 Report on the Proposed Electric Railways for the City of Sydney. It shows the streets, railway and tram lines in the vicinity of Milson's Point and McMahon's Point at that time, with the proposed bridge railway and tramway superimposed – but no detail of the bridge roadway. In this plan the tram line across the bridge was proposed to start from the foot of Junction Street at Alfred Street, rather than the route via Blue Street later adopted.



*To enable construction of the bridge, in 1924 the Milson's Point tram line and the north shore railway were cut back to a terminus alongside Lavender Bay. Trams are seen in Glen Street at the temporary terminus soon after its opening. The railway station can be seen at lower right, together with the structures housing the lift and Australia's first substantial set of escalators, which were moved to city stations after the bridge opened.*

State Records, NSW: 12685\_a007\_a00704\_8722000152r

tram service to be removed, nor would it be necessary, owing to the increased train capacity which can be obtained by bifurcating at platforms."

Two Parliamentary bills submitted in 1916, and another in 1921 - all of which failed to be passed - sought to sanction a high-level cantilever bridge with connections for using two lines temporarily for tramway purposes.

When the bridge was finally authorised by Parliament in 1922, no specific mention was made of trams using it; but from all that had gone before, it was reasonable to expect that this would happen.

The issue of whether trams would in fact cross the bridge appears to have first surfaced in a report in the *Sydney Morning Herald* (hereinafter the *Herald*) on 2 December 1927. It said that Dr Bradfield had attended a special meeting of North Sydney Council the previous night. He had reported on progress of construction of the bridge and the city railway.

According to the *Herald*, Dr. Bradfield said that the tramways would not cross the harbour bridge, and he was making provision on the western side of Kirribilli Station for a "parking area for trams and motor buses, which would bring the passenger traffic to the railway".

The next newspaper item was a little over a year later, on 22 January 1929, and the matter was made even clearer. Under the heading

**NO TRAMS.  
ON HARBOUR BRIDGE.  
Dr. Bradfield Explains.**

the report included the following:

Dr. Bradfield made it clear yesterday that there would be no provision for tram traffic on the harbour bridge, which was designed to accommodate four sets of rails for electric trains, a sixty-foot road for vehicle traffic, and two footways, each 10ft in width.

"It can be definitely stated," he said, "that there will be no trams on the bridge. The roadway will carry six lines of traffic - three each way."

The Mayor of North Sydney (Alderman H. L. Primrose) said that he was not surprised at the announcement that trams would not run across the harbour bridge. "I have always assumed," he added, "that when the bridge was completed the network of railways on the northern side of the harbour would be in operation. In that case residents of North Sydney would be able to travel across the bridge by train from the city





*A view looking south from the Walker Street pedestrian bridge on 1 February 1932. The approach tracks for the trams are at left, and the temporary railway connection to the eastern side can be seen. This was used first for wiring trains, and then for access by the massed locomotives which were placed on all four tracks for load testing of the bridge.*

State Records, NSW: 12685\_a007\_a00704\_8723000175r

stations, and alighting at Kirribilli or North Sydney stations, would be able to continue their journey from those stations by trams or motor buses.”

Alderman Primrose added that the tram services would probably be reorganised to act as feeders from Kirribilli and North Sydney stations, from which points there would doubtless be satisfactory connections. It would be unreasonable to expect the tramway services on the north side of the harbour to run parallel to the electric railways, and act in opposition to the trains, but the tramways could be organised on such a basis that they would be feeders to the railways.

The “network of railways on the northern side of the harbour” to which the Mayor referred was that envisaged by Bradfield in his 1915 report. Fifty trains per hour would cross the bridge, serving destinations as far-flung as Northbridge, Seaforth, Manly, Narrabeen, Mosman, Balmoral and Athol Gardens; in addition of course to the line to Hornsby.

Nevertheless the Mayor’s acquiescent view of the matter was far from universally shared, as would become apparent. In a letter to the *Herald* next day, a writer identified as “H.S.” declared:

The people of North Sydney, Crows Nest, Willoughby, Northbridge, the Military-road suburbs, and others, are participating enormously in the cost of building the bridge, and they are entitled to have direct access to the city by it. It would be gross unfairness and inefficiency to impose upon them the necessity of travelling by tram or ‘bus to North Sydney station, and then changing into crowded trains in order to cross the bridge. That break in the journey to the city must pass away with the passing of the ferry crossing, and no compromise will be tolerated. ... It would be utterly unreasonable to allow private cars across the bridge and compel the less fortunate persons who have to travel in the public vehicles to break the journey at the bridge head.

Thereafter the argument continued, over the following two years. The positions of the opposing forces soon became clear. The local government councils north of the harbour wanted either trams or buses, or both, to cross the bridge. Since 1923 residents of the City of Sydney and the municipalities of North Sydney, Mosman, Manly, Lane Cove and Willoughby, the shires of Kuring-gai and Warringah, and that portion of the shire of Hornsby directly served by the railway system, had been paying a surcharge on their rates of a half-penny in the pound,

or approximately 0.21%, to meet one-third of the cost of the bridge. Some of these local government areas were of course beyond the extent of the tram network, hence their interest in buses having access to the bridge.

The railways would be paying two thirds of the cost of the bridge, and they were opposed to any competing public transport services that would divert some of their revenue. At this time the bridge was expected to be toll-free, and the idea of a surcharge on tram or rail fares, which eventually came to pass, was apparently not anticipated. The Acting Premier, Mr Buttenshaw, meeting a deputation in July 1929 said that "if buses were allowed to cross the bridge the Cabinet would have to consider whether the bus companies should not pay half the Railway Commissioners' share of the cost of the bridge". To this the Mayor of Manly, Alderman Brady, responded: "The Government's first consideration should be the convenience of the people. The progress of the people is being seriously hampered by the narrow policy of the Railway Commissioners. Manly residents, who have contributed towards the

cost of the bridge, are receiving no immediate railway communication. What advantage have we gained?"

The Mayor of Mosman, Alderman Buckle, gave his primary support to trams crossing the bridge. "I hate to think of the congestion at Wynyard-square if buses are allowed to cross the bridge" – a comment which, 80 years on, can be seen to have been very far-sighted.

The Acting Premier told the deputation in July that (in the words of the *Herald*) "he agreed that the question should be settled early so that people might know the position. He promised, therefore, to place the subject before the Cabinet as early as practicable so that the questions which had been raised could be definitely settled." If in fact the issue was put before Cabinet at this time, there was no change to the previous position.

At the same time Dr Bradfield re-opened the possibility of trams crossing the bridge. In contrast to his earlier firm statements, the *Herald* on 31 July 1929 reported him as saying on the previous day: "In

*A view from a wiring train on the eastern tracks on the bridge, taken on 25 January 1932.*

State Records, NSW: 12685\_a007\_a00704\_8733000152r





addition to the railway lines connecting the northern and southern side of the harbour the plans provided for two additional sets of rails, which would ultimately serve the Manly district. As a temporary expedient, if the Railways Commissioners desired, these tracks could be utilised for a tramway”.

### The tide starts to turn

In the middle of 1930 an administrative change occurred which was to have a major effect on the issue of trams crossing the bridge. Since the start of Sydney’s tram system in 1879, the trams had been run by the railways. The NSW Transport Act 1930 created the Metropolitan Transport Trust to take control of the tramways. The rules of the game had changed. The trams now had a voice separate from the railways.

The trust acted quickly. In September 1930 it moved to reopen the issue of trams crossing the bridge. The chairman, Mr Maddocks, announced that the trust was of the opinion that an immediate conference should be held to determine whether the set of rails that would not be utilised for the northern suburbs railway should not be used by the North Sydney trams.

### The railways find a need for four tracks

Moving to defend their position, the railways now let it be known that they would need all four tracks on the bridge from the time it opened. According to the *Herald* of 6 September 1930:

The bridge is designed to carry four tracks of electric railway, but at an earlier stage of the construction it was regarded as uncertain that the Railway Commissioners would use more than two. In that event, it would have been possible to devote two to a trans-harbour tramway service. The Commissioners have decided, however, that they will require all four tracks for their electric railway scheme. There will consequently be no trams on the bridge, which will accordingly be reserved for rail, motor, vehicle, and pedestrian traffic.

The issue was also raised again by local government representatives. The *Herald* reported that the matter came before a meeting in October of the executive of the ‘Willoughby Municipality Transport Vigilance Committee’ at which there were representatives of the

*An overhead wiring train on the eastern tracks on the bridge, soon to be used by trams, on 3 February 1932.*

State Records, NSW: 2685\_a007\_a00704\_8733000167r







*Junction Street on 19 February 1932, alongside the northern railway and tramway approach to the bridge, being widened to form part of the Pacific Highway. The difficulty of completing this work while the tram lines were still in use led to the proposal that Milson's Point trams should be diverted to McMahon's Point in advance of the opening of the bridge.*

State Records, NSW: 12685\_a007\_a00704\_8723000180r

councils of Willoughby, North Sydney, Lane Cove, Kuring-gai and Hornsby, and 'local associations'. Councillor Chapman, the northern constituency representative on the Transport Trust, said that the trust would be disappointed if it failed to get the trams to cross the bridge. As will be seen, the trust's campaign for trams to cross the bridge would prove more effective than efforts made by councils for buses to do the same.

On 24 November 1930 the Minister for Works and Railways, Mr Davidson, presided over a high level meeting on the matter. Under the headline

**HARBOUR BRIDGE.  
Request for the Trams.  
CABINET TO DECIDE.**

the *Herald* next day reported that:

A conference held yesterday in the room of the Minister for Works and Railways, Mr. Davidson, discussed the widely divergent views of the railway authorities and the Transport Trust on the question whether trams or buses should be allowed to travel across the Harbour Bridge on completion.

The Minister presided, and among others present were Mr. W. J. Cleary, Chief Railway Commissioner, and Mr. O. W. Brain, Assistant Commissioner; Mr. Maddocks, chairman of the Transport Trust; Mr. Mitchell, Director General of Public Works; and Dr. Bradfield.

It is understood that the two authorities agreed to report to the Minister this week as to the practicability or desirability of trams or buses using the bridge, each authority to present



*The first tram across the bridge, on 9 March 1932, seems to have been a popular event. At a photo stop on the northern approach Dr Bradfield is at extreme right, standing beside the front of the tram. Everyone is in a suit except for a single workman in a white singlet.* State Records, NSW: 12685\_a007\_a00704\_8735000059r

arguments in support of its claims. The Minister will present these reports to the Cabinet, which will decide the policy.

Northern suburbs residents have been making strong representations that part of the bridge should be made available for tram traffic, to avoid delay and inconvenience to passengers in changing from train to tram and vice versa.

The railway point of view is that the department should not be faced with either tram or bus competition, seeing that it will have to find two-thirds of the total cost of the bridge, about £7,000,000....

For the Railway Department, it is contended that only Neutral Bay or Mosman passengers will be asked to change from train to tram or

bus on the North Shore, all other traffic, both city and suburbs, will be served by electric train, without any change.

It might be commented that the railways' line of argument, that only travellers from Neutral Bay or Mosman would be affected, ignored the needs of tram travellers from the Lane Cove, Chatswood and Northbridge lines who had little or no opportunity to use trains to reach the city.

Such was the public interest in the controversy that the *Herald* ran a series of articles over four days, 26–29 November 1930, in which the arguments of the Railway Commissioners, the Trust and local authorities were given in detail, as were issues affecting pedestrians. One of the points made was as follows, under the heading 'Inconveniences foreseen':



The public will chafe at the suggestion that they should have to change from trams at the North Shore stations merely to climb into electric trains for the brief journey into the city. It is generally complained that congestion will occur at these stations especially at Kirribilli in the peak hours, that there will be delay, and that trains from Hornsby will probably be crowded on arrival at the northern bridge approaches.

This is remarkably similar to a topic that is current 80 years later, namely the issue of whether travellers from Sydney's planned north-west railway will find it difficult to board crowded city-bound trains at Chatswood.

Local councils kept up the pressure. On 10 December 1930 a deputation "representative of practically every municipality, shire and public body on the north side of the harbour" waited on the Minister for Local Government, Mr McKell, to impress upon him the immediate need for a decision on whether buses or trams, or both, should be allowed to cross the Harbour

Bridge. The Minister's reply was that "the Cabinet was alive to the necessity for an early decision and that everything would be done to expedite it". There had been a change of government, to the Labor administration headed by Jack Lang, at the election held on 25 October 1930. No doubt the new government felt a preparedness to change the decision of its predecessor.

### The Railway Commissioners' case

The paper prepared by the Railway Commissioners for the consideration of Cabinet, dated 1 December 1930, has survived; at the time of preparation of this article a copy of the opposing material from the Transport Trust has not been found. The railways' paper spelt out at length the financial difficulties they faced, and therefore the need for protection from competition from trams or buses on the bridge. It dismissed the inconvenience of changing from tram or bus to train at North Sydney station. "This inconvenience, such as it is, is accepted by people in all cities of the world. For years past the people of Sydney have changed daily, and they will no doubt

*Blue Street North Sydney in April 1932. O car 925 is on its way to Chatswood; North Sydney station is at right, while at left the entrance to the pedestrian subway can be seen. This was built in anticipation of this spot being the terminus and transfer point for north shore tram travellers. The subway remains in use today, with its access steps covered to provide shelter from the weather.* State Records, NSW: 12685\_a007\_a00704\_8723000183r



continue to change daily, between trams, trains, buses and boats ... The inconvenience of changing from one vehicle to another is small when thrown into relief against the very grave effect on the railway finances which would result if competitive services were permitted to operate over the bridge."

The paper acknowledged "the railway burden in connection with the bridge might be adjusted by relief from portion of the interest or by the payment to the Commissioners of the revenue collected from tram passengers crossing the bridge. This, however, would undoubtedly be only a temporary relief, because once a tram or bus service was established it would set up a strong vested public interest which would be difficult to resist when the time came for the railways to reclaim the eastern tracks".

But before coming to the financial issues the paper had introduced some new elements into the argument. First, it was suggested that the railways would need all four bridge tracks from the outset. This position had

already been made public in the *Herald*. The paper stated that the tracks on the eastern side would be "reserved for local traffic between North Sydney and Wynyard". It went on to say that "the local (North Sydney–Wynyard) traffic on the eastern lines will be handled at the eastern upper platform at Wynyard, and the more local passengers we can divert to this line from the western lines the more we will be relieved of the threatened congestion at the western upper platform". The paper said that "the risk of congestion if trains are confined to the western tracks will be intensified should these tracks become blocked from any cause". It has to be said that a local train service from North Sydney to Wynyard would have obviated the concern about tram passengers having to change into crowded trains from Hornsby.

Second, the paper argued that because of the need to provide a signalling system for trams in the tunnel to Wynyard, they would have to run at "less frequent intervals than is permitted to them on the open street. Having a smaller carrying capacity and lower speed

*Instructions issued when the bridge was opened stated that, as far as possible, all trams running to Wynyard were to consist of O type cars. However E cars were a common sight on the bridge until virtually all were replaced by R cars from late 1934 onwards. A pair of Es runs down the southern approach of the bridge on 14 April 1932, less than a month after opening.*

State Records, NSW: 12685\_a007\_a00704\_8724000163r







Soon after the opening of the bridge a pair of Es arrives at Milson's Point followed by O car 845 bound for North Sydney Depot.  
Vic Solomons collection

rate than trains, the trams would therefore be unable to handle the local traffic in the peak hours with anything approaching the speed of trains, and this loss in travelling time should be set off against the slight saving gained by cutting out the changeover at North Sydney station". It was stated "moreover the driving of such trams would be restricted to men who had become familiarised with the special signalling arrangements in the Wynyard tunnel".

These arguments were not sufficient to counter those of the Transport Trust. On 2 February 1931 Cabinet made its decision. Trams would cross the bridge. "Whether or not buses will be permitted to cross the bridge will be decided after the structure is completed". The matter had been decided, in favour of trams, at the highest level. The time for argument had passed. No it hadn't.

To be continued

#### In the next issue:

The railways fight back: "public safety gravely threatened".

#### Gold Coast trams on their way to Australia

Five trams destined for the Gold Coast light rail system were being brought by sea to Australia when this issue of *Trolley Wire* went to press.

Two trams were loaded aboard the heavy lift carrier MV *Parabola* at the German port of Bremen on 30 June. They were loaded as complete units using special slings. The *Parabola* is expected to arrive in Brisbane on 2 September.

Three more trams were lifted aboard the roll-on roll-off vessel MV *Rubina* at Bremen on 31 July.

Once unloaded in Brisbane the trams will be transported by road to the Gold Coast light rail depot, where commissioning and testing will take place.

# SYDNEY'S MONORAIL CLOSES

The Sydney monorail had its origins in 1985 when the New South Wales Government announced the redevelopment of 50 hectares of the former railway goods yard at Darling Harbour. Included in the plans was the concept of a 'people mover' to link the CBD with the area being redeveloped.

The bid process attracted a number of proposals, mostly of futuristic transport systems but including a light rail proposal from a consortium of Comeng and other leading companies. The final choice was between light rail and a Von Roll monorail system proposed by TNT, and the selection of the latter was announced in October 1985. Details of the competition and the factors which led to the monorail system being chosen are given in Volume 5 of John Dunn's history of Comeng, published recently. Initially operated by TNT Harbour-Link, the monorail opened on 21 July 1988. The first test services had run in October 1987 on a 500 metre section at Darling Harbour.

In August 1998 TNT sold the monorail to CGEA Transport Sydney. This company, which traded as Metro Transport Sydney, was owned by CGEA

Transport (later renamed Connex) (51%), Australian Infrastructure Fund (19%), Utilities Trust of Australia (19%) and Legal & General (11%). Veolia was contracted to operate the system.

There were eight stations on the 3.6 kilometre one-way loop. It served major attractions and facilities such as the Powerhouse Museum, Sydney Aquarium and Sydney Convention and Exhibition Centre. However the monorail did not connect with the city railway in the CBD, greatly diminishing its usefulness in providing a transport link to Darling Harbour.

The track was a steel box girder of 94 centimetres width, raised at a minimum height of 5.5 metres from ground level on steel columns 20 to 40 metres apart. The minimum curve radius was 20 metres and the maximum gradient 4.4% uphill and 6.5% downhill.

Power was supplied at 500V AC to power the train, via a sheathed conductor below the running plate of the track. A control rail was also provided for train control, and a generator provided to clear trains from the track in emergencies. The maintenance facility was located between Convention and Paddy's Market



*A route map of the monorail published in 2004 during a period when the Chinatown station was closed. The monorail is shown in red while the light rail line is in blue.*



stations, where a traverser moved trains in and out of service, for stabling or maintenance. The facility also housed a control room as well as an administration area and staff amenities.

Each station stop took approximately 40 seconds, including the time to decelerate, board passengers, and accelerate again. TNT's initial promotional material stated that a complete circuit of the route would take approximately 12 minutes, "depending on flow conditions". It was originally intended that the monorail would operate without drivers, but a satisfactory automatic control system was never developed. Accordingly it was necessary to retain drivers, who occupied the first car of each train. In normal operations four trains were in service.

The monorail operated anti-clockwise around its single-track loop, with the following stations (in order):

- Harbourside – located adjacent to the Harbourside Shopping Centre at the western end of the Pyrmont Bridge
- Convention – served the Sydney Convention Centre and Exhibition Centre
- Paddy's Markets – formerly named Powerhouse Museum and originally Haymarket
- Chinatown – located inside the One Dixon Street shopping centre, opened in 2001 as

*Bearing 'farewell' lettering, a monorail train turns into Market Street from Pitt Street in the last month of service. The photo shows the rear of the train as it turns out of the City Centre station, inside the building at left.*

Richard Jones



*A monorail train crosses from one side of Market Street to the other as it descends towards Pyrmont Bridge.*

Dale Budd



*Decked out in self-promotion advertising, a monorail train has just left Paddy's Markets station and is about to turn left to follow Harbour Street.*

Richard Jones

Garden Plaza. It closed on 26 July 2004 and reopened as Chinatown station on 18 December 2006. By 2012 the station was unmanned and was open between 7am and 9am on weekdays only, with the station entrance locked outside these hours

- World Square – a temporary station existed until 2005 when it was rebuilt and incorporated into the new adjacent building
- Galleries Victoria – originally named Park Plaza. A temporary entrance was provided until 2000 when the station was incorporated into the new adjacent building
- City Centre – a temporary station existed until mid-1989. During construction of the City Centre Shopping Arcade, the temporary station was partially suspended above Pitt Street
- Darling Park – the station was planned to be called 'Casino', but the present name was adopted when Sydney's casino was built in Pymont.

Six trains each comprising seven carriages were built by the company Von Roll Holding to its Type III specification and delivered in 1987. The trains were designed to seat 56 passengers. However as used in Sydney, each seated 48 passengers as a result of the driver occupying the leading car.

The monorail trains ran on rubber wheels. Each train had six 37 kilowatt traction motors that permitted a normal operating speed of 33 km/h. The doors of each car opened and closed automatically, and the floor level was self-adjusting via an automatic suspension system. Each train was 32.12 metres long, 2.06 metres wide and 2.6 metres high.

The New South Wales Government bought both the monorail and the Central to Lilyfield light rail service from Metro Transport Sydney on 23 March 2012, primarily to enable it to remove the monorail from the area near Haymarket required for redevelopment and expansion of the Sydney Convention and Exhibition Centre.

After carrying 70 million passengers in its 25 years of service, the monorail ceased operating on 30 June 2013 and is being dismantled. The last of the rolling stock was removed on 31 July. Two carriages and 10 metres of track will be preserved at the Powerhouse Museum, while the Sydney Electric Train Society plans to preserve a complete train.

Set 1 had been stored following a significant collision between it and set 4 in early 2010. The last carriage in set 1 was removed and used to replace the damaged last carriage in set 4. Sets 2-6 were operational when operations ceased.

Maintenance of track and stations was conducted at night with special vehicles called the 'buggy' and the 'mule'. One of these was seen operating on the monorail track above Liverpool Street on 18 July, almost three weeks after the service closed.

And the final outcome of the competition between the monorail and light rail? After running for 25 years the monorail has been closed down. Light rail came to Darling Harbour in 1997 bringing a transport connection from Central Railway; its route along Hay Street is exactly as proposed by the Comeng consortium in 1985. The initial line has already been extended, and over the next few years Sydney will see a substantial expansion of light rail while the monorail has been consigned to history.



*A monorail train carrying advertising for the Maritime Museum passes the Holiday Inn in Harbour Street.*

Richard Jones



*A monorail train with colourful advertising for the Sydney Sea Life Aquarium crosses the square between the Entertainment Centre and Market City, formerly known as Paddy's Markets.*

Richard Jones

*What might have been: artwork prepared by Phil Belbin for Comeng in 1985, showing an ultra-modern light rail vehicle crossing Pyrmont Bridge.*

Dale Budd collection





# A TALE OF THREE SYDNEY O CARS

## 805, 808 AND 1187

By Dale Budd

Discovery recently of a picture of Sydney O car 805 on the traverser at Randwick Workshops, with 'sold USA' clearly marked on it in chalk, prompted a brief investigation. As is well known, 805 went to the Museum of Applied Arts and Sciences, now the Powerhouse Museum, while sister car 1187 went to America. Why was 805 marked in this way?

The explanation came from the record cards of 805 and 808, provided from the Sydney Tramway Museum's archives.

The cards make it clear that 808 was originally intended for the Museum of Applied Arts and Sciences, but was passed over after being vandalised. It had been at North Sydney in early 1958, but was not involved in 'last run' vandalism when that system closed. The last cars, on the famous run to Balmoral, Wynyard, Lane Cove and back to the depot, were 1212 and 1347.

No. 808 was apparently in good condition when it came back from North Sydney; it went to storage at Waverley, the only ex-North Sydney O car not to go to Randwick Workshops for scrapping. Its card indicates that the car was "retained at Waverley" for the Museum of Applied Arts and Sciences. The vandalism that the car suffered, and of which no details have been recorded, almost certainly occurred after that time, most likely at Waverley. No. 808 reached Randwick on 8 December 1958 and was burnt on 23 December. There appears to have been a quick

decision that it would not be repaired; perhaps this was made before it arrived at Randwick.

No. 805's card indicates that it came to Randwick on 23 November 1958, the day after Rozelle Depot



*A close up of the chalked 'Sold USA' under the number panel.*



*O car 805 stands on the traverser at Randwick Workshops about 1960, its side panel marked 'Sold USA'.*

[illegible]

*The record card for O car 805.*  
STM archives

*The record card for O car 808.*  
STM archives

[illegible]



closed. However another record suggests that the car was transferred earlier, on 21 November: there is a notation 'scrap 21/11/58'. No. 805's card also shows that it replaced 808 for the Museum of Applied Arts and Sciences, and that 1187 was selected to go to America in lieu of 805.

No. 805 seems to have had a lucky career, or perhaps was looked on with favour by someone at Randwick Workshops. It received accident repairs at the workshops in May 1956, at a time when O cars were being scrapped rather than repaired.

The cards reveal the information that 805 and 808 both received GE247 motors in 1955, as part of the re-motoring program then under way. That program, like many aspects of the run-down of Sydney's tramways, demonstrated the uncertainty of policy towards the trams and ultimately the waste resulting from closure of the system.

To complete the story of preserved O cars, mention should be made of Nos. 957 and 1111. The latter was of course the first O preserved by the Sydney Tramway Museum. It was chosen simply because it was the favourite tram of the late Gil Hayman, who pressed then General Manager Norm Chinn to request it. At the time Norm was not aware that 1111 had the distinction of having run on the Manly lines. No. 957 was sold, fortunately with bogies and wheels, after its withdrawal in 1955. It was recovered from near Liverpool and brought to the Museum in 1978. Considerable progress has been made on its restoration; its time will come.

Thanks to Howard Clark, Tony Cody and Martin Pinches for providing information for this article.



*Car 805 at Randwick Workshops about 1959. It is not on a scrap road siding.*

Martin Pinches

*O car 1187 has been loaded on the Matson Line vessel Ventura in Walsh Bay, bound for the Oregon Electric Railway Society. It arrived in the USA on 26 September 1959. Its bogies are in the foreground.*

John Burgess





*Car 808 at the Argyle Street crossover on the southern approach to the Sydney Harbour Bridge on a tour held on 13 April 1958.*

John Burgess



*Car 805 passes through The Glen, Watsons Bay, on a tour held on 15 November 1958.*

Dale Budd

*O cars 805 and 1369 at Lilyfield terminus on 15 November 1958.*

Howard Clark





*Car 805 in Randwick Workshops undergoing refurbishment on 15 October 1959.*

Robert Merchant



*Car 805 being unloaded at Ultimo Depot for temporary storage.*

Dale Budd



*805 safely stored in Ultimo Depot on 2 November 1963.*

Robert Merchant



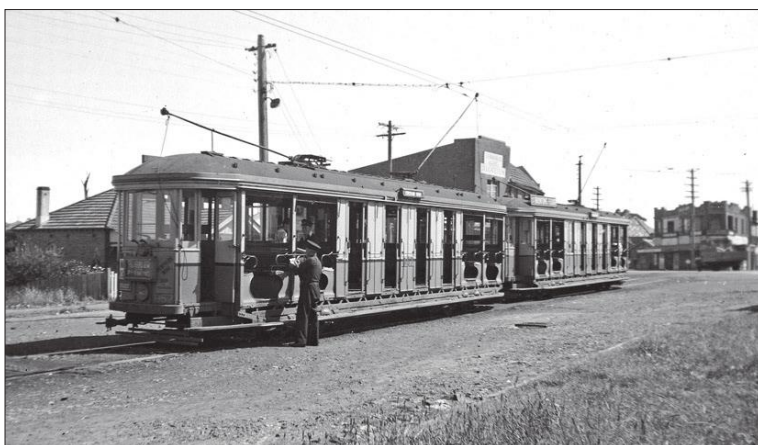
*O 805 being prepared for transport from Ultimo Depot to the Powerhouse Museum's storage facility at Castle Hill.*

John Fawl, J. Croke collection



*O car 1111 arrives at Railway Square on a service from North Bondi, its destination already set for the return journey, 14 November 1954.*

Kelvin Cowan, STM archives



*O car 957 and a sister car at Hattons Flat, now Top Ryde.*

Norm Boxall, M. Pinches collection



# HERE AND THERE

## AUSTRALIAN AND OVERSEAS NEWS

### Adelaide tram news

The short section of single track at City West in North Terrace was duplicated over the Queen's Birthday weekend. The single track section of approximately 300 metres had existed since the line to City West opened in 2007, its purpose being to allow motor vehicles to perform a right-hand turn into the Convention Centre.

A crossover was also installed to the west of the Railway Station stop in North Terrace over the long weekend. During special occasions in the city, such as the Christmas Pageant and Anzac Day, trams from Glenelg could be turned back either at South Terrace, Victoria Square or Rundle Mall. However, the absence of a crossover prevented the turning back of trams approaching the city from the Entertainment Centre, thereby necessitating a substitute bus service.

To allow the work to be carried out, trams from Glenelg terminated at the Rundle Mall crossover from about 8:00pm on Thursday, 6 June 2013. A substitute bus service was provided between the Adelaide Railway Station and the Entertainment Centre at Hindmarsh. The work, which also included removal of the single track signalling system, was completed in time for the first service on Tuesday morning 11 June.

The duplicated track, comprising the down or southern track, was tested by Flexity tram 114 at about 4:00am on 11 June prior to the first service run by Flexity tram 103 at 5:30am as normal. The crossover was tested two days later on 13 June, again by Flexity tram 114, prior to the first service run of the day.

A new five-story car park that adds 600 spaces to the 750 spaces previously available, opened at the Adelaide Entertainment centre at Hindmarsh on 1 July, with tram travel to the city remaining free. The car park and tram services to the city have proved very popular with commuters from Adelaide's north-western suburbs.

At Glengowrie Depot in the city's south, a new administration building on the western side of the depot access track opened on 17 June. The previous building on the eastern side of the depot access track, opened with the depot in 1986, is being demolished to make way for a staff car park.



*Driver Judith Marshall holds the points bar to set the right track after returning to the depot in Flexity 107 from a morning peak hour run on 19 June. The new administration building is in the background.*

Colin Seymour

*The new Glengowrie Tram Depot administration building, viewed from across the depot access track on 19 June.*

Colin Seymour



# FERNY GROVE

**BRISBANE TRAMWAY MUSEUM SOCIETY**

PO Box 94, Ferny Hills, Queensland 4055

[www.brisbanetramwaymuseum.org](http://www.brisbanetramwaymuseum.org)

## From Peter Hyde

Work at Ferny Grove has continued on the restoration of trams 136 and 400. The upper body of No. 400 is substantially complete but difficulties with the lifting jacks have meant that underfloor work cannot commence until substantial repairs to the jacks can be undertaken.

The '400 crew' have turned their attention in the meantime to an extensive rebuild of replica horse car No. 41. The car was built by the Brisbane City Council in 1959, using an original underframe that had survived as a welding trolley. It took part in a cavalcade of transport held that year in conjunction with Queensland's centenary celebrations. Having been built inexpensively it deteriorated significantly over the last 50 years and was not at all attractive. Progress in restoring the vehicle has been extremely rapid because of the simple nature of its design. Interestingly, while the journal boxes are dated 1885, the wheels were cast in 1895, only two years before electrification.



*Left: A refurbished wheel and axle set from horse car 41. The wheels were cast in 1895.*

*Malcolm Heidenreich and Ian Brandt remove the side panels as part of the restoration of replica Horsecar 41. Some augmentation of the propulsion system may also be required!*

All photos by Peter Hyde

The '136 crew' have almost completed the re-wiring of the lighting circuits and are currently re-attaching parts on the body of the tram.

Dropcentre 341 has finally returned to traffic after a compressor failure. Because both of our spare compressors were found to be defective when inspected before being installed into 341, the changeover was delayed while the two spare units were dismantled and the parts used to make an operating compressor.

A grant from the Brisbane City Council has enabled repairs to the roof of the display building to be completed. The Gap storm that wrought havoc to our site some years ago accelerated deterioration of the roof and caused leaks. The cost of air conditioning our lunchroom was also covered in the grant.

Our usual operations have continued in parallel with these developments, although current economic conditions are resulting in lower visitor numbers and dramatically reduced souvenir and book sales.





*Before a detailed assessment of the work required could be done, the dust of many years storage had to be removed.*

*Brian Martin, Pat Bourke and Bob Deskins fit the final ceiling panel into FM 400. Accomplished with some difficulty, this step effectively marked the completion of the major 'above floor' phase of the car's restoration.*



*Pat Bourke and Bevan Burnes watch as Graham Watson lowers the new compressor for car 341 onto an elevating platform prior to the installation of the compressor in the tram.*



*Release of the film The Great Gatsby was the inspiration for one segment of a photo shoot organised by the Aspley Camera Club in May.*



*The Display Room was transformed into a hairdressing salon and make-up parlour to prepare the models for their various roles during the Aspley Camera Club visit.*

*On 2 June, the Museum hosted a visit from the Queensland Mini Owners Car Club, who posed some of their vehicles with Combination car 47 and 10-bench car 65.*



# LOFTUS

## SOUTH PACIFIC ELECTRIC RAILWAY CO-OP SOCIETY

PO Box 103, Sutherland, NSW 1499

[www.sydneytramwaymuseum.com.au](http://www.sydneytramwaymuseum.com.au)

### From contributors

#### Centenary of K 1296

In June 2013 Sydney recorded its wettest month for six years. Just over 316mm of rain fell during June, more than double the historical average of 131mm. The exceptionally wet weather continued right up to the last day of the month, which was the day we had chosen to mark the centenary of K car 1296.

So despite some good publicity, especially in Sydney's *Daily Telegraph*, the weeks of hard work by a number of members dissipated into a morning where sheets of rain ensured potential passengers stayed at home rather than attempt a wet visit to Loftus. Not surprisingly, the Model T Ford Club also cancelled their run to the museum in the face of the prevailing conditions.

The sun managed to make an appearance in the afternoon and photographers were out in force to capture the spectacle of our fleet of olive, fawn and grey Sydney trams operating together, without a green and cream car in sight.

No. 1296, not currently operational, was towed to its display position in Cross Street. Peter Black set up an audio-visual display commemorating the car's history and provided a centenary birthday cake. He made a

short speech about 1296 before the small crowd sang Happy Birthday. The cake was cut by the inspirational Katie Strancar, our 1920s flapper, vamp and sweet young thing, assisted by a young visitor, Taylor Compton-Perry of Caringbah.

The crews who braved the wet and wintry conditions to operate the trams on that Sunday deserve special thanks.

#### Appearance on Channel 7's *Sunrise* program

The Sydney Tramway Museum featured in the weather segment of Channel 7's *Sunrise* program on Monday, 15 July. There were live crosses to the museum every half hour from 6.00am until 8.30am.

*Sunrise* is Australia's top-rating morning show, with a viewing audience of around 1.5 million people across all states and territories. It is also seen in New Zealand, so this was seriously good free publicity.

The idea originated from an email David Critchley sent to television stations in anticipation of K 1296's centenary. Channel 7 could not do anything then, but they had had a last minute cancellation on Sunday



*Peter Black makes a short speech to the small crowd, before they sang Happy Birthday.*

Richard Jones



night for Monday morning (by the US Navy no less!) and the producer remembered David's media release. We had only a very short time to organise the event – literally 10 hours. However, in that time we managed to get six hardy members to the museum at 5:00am on a Monday morning so that everything was set up ready to go at 6:00am.

We would like to thank the following members for making themselves available on the day: Bill Parkinson, Craig Parkinson, Mark Newton, Matthew Geier, Andrew McCabe, Peter McCallum, Vic Solomons and David Critchley Thanks also to Liam Brundle who recorded the program, edited and



*Young visitor Taylor Compton-Perry assists Katie Strancar with the cutting of 1296's birthday cake. Dale Budd*

*Commentator Edwina (Eddy), in the red coat on J 675, checks her notes before the start of the Sunrise program on 15 July.*

Matthew Geier



uploaded all six segments to YouTube. Liam's effort can be viewed at

<http://www.youtube.com/watch?v=ltAbF3Z71dc&feature=youtu.be>

### Works report

The eastern track north of Pitt Street has been re-laid with welded joints and steel sleepers as far as the new trailing crossover, except for a four-metre gap left to avoid expansion problems. Following an email appeal mainly to traffic staff, \$3400 in donations was made towards the purchase of concrete to complete this project. On 18 May ten cubic metres of purchased concrete were placed in the 'four foot' of the eastern track from just north of Pitt Street to the expansion gap and also from the crossover back to the gap. With both sides of the gap firmly anchored in solid concrete the gap was bridged with rails and sleepers on 1 June and 5 June. Ballast motor 42s tested the crossover on 8 June.

The supply of surplus concrete has increased lately, especially with Andy McDonald and Katie Strancar receiving some good drops on Thursdays and Fridays in addition to the usual Wednesday and Saturday drops. A further 2.6 cubic metres was purchased and laid on 6 July, completing the 'four foot' to rail level. Concreting of the 'six foot' and the side edge strip nearest the road are continuing.

Wiring of the crossover will be necessary before this track can be brought into general use, and two overhead frogs have been obtained from Haddon. As they are fairly worn they will need to be built up before they can be used. Courtesy of one of our CSO workers, a mini excavator was provided and used to



clear the abandoned road bed north of the crossover and some rails have been positioned to extend the eastern track north of the crossover points. Track drains have been pre-fabricated at the front gate for up-coming concreting of the eastern track to match that on the western track at that location.

As there is currently no power available at the new Loftus Junction shed, and as the diesel alternator set is not powerful enough to run the three phase welder, the four 36 metre rails for the shed were welded near Depot Junction where power is available. On 15 June the first two rails were dragged up the hill as far as possible by 99u. Tom Tramby then took over with No.3 forklift to tow and position the rails inside the shed for the eastern track. Wet and muddy conditions made this a difficult task.

The Wednesday crew manufactured 53 tie bars and these were used to gauge the two rails in the new shed, which have also been levelled and packed ready to be concreted. Reinforcing mesh has been cut ready to be laid, and it is hoped that the first concrete pour will take place in early August.

CSO bricklayers have erected a new brick wall panel on the eastern side of the display hall to replace the final section of the temporary sheet metal clad wall still visible from the road and from Tramway Avenue. Scot Aston has done some brickwork on strip footings in the same area to provide a future ramp to the first floor southern entrance to the YMCA building.

The overhead department erected a side arm bracket on one of the two new poles on the National Park line and the old pole was later demolished by Engadine Fire & Rescue as a training exercise. We supplied a pattern to a brass foundry, which cast 25 sets of wire grips for grooved trolley wire.

### Tramcar repairs and restoration

In the workshop H car 358 was lifted and the bogies run out for repair, cleaning and painting. The repair consisted of welding in a new heavy rectangular hollow section steel end transom to replace the one bent in old derailment damage. The radius bar was straightened and a broken brake hanger was re-welded. The body was lowered back onto the bogies on 8 June. The opportunity was taken to remove a loose side



*On 15 June, the first rails for the new shed were towed to the site by ballast motor 99u.*

Martin Pinches

*The rails were placed in position in the shed by our forklift.*

Martin Pinches

*The bogies for H car 358 were positioned under the car on 8 June, prior to lowering the body onto them.*

Martin Pinches



*The repaired bar on the end of H 358's bogie.*

Martin Pinches

panel. Rod Burland is cutting out rotted timber and is fitting new timber into the framing where required. Other repairs have been carried out to this car.

Bent plough-type lifeguards from 134s and C 29 have been repaired and refitted to those cars. New timber has been spliced into the four main corner posts for grip car 322. Frank Cuddy continues reassembling the PC5 auto acceleration unit for P car 1729, combining components from the incomplete unit with one received from Adelaide, courtesy of COTMA and Ian Seymour. A CSO welder has fabricated the main components for the concertina door frames. He also carried out panel beating repairs to several lower side panels, straightened some fixed footboard brackets at the car ends, and freed up other jammed footboard brackets. Steel was also cut for the levers and rods for the door mechanisms concealed behind

the advertisement racks. Geoff Spaulding has completed the repairs to the damaged drivers cab and has fitted the floor slats in all eight compartments, and removed, repaired and replaced where necessary, the underframe kickboards.

Our painting team and a CSO worker have continued preparation, priming and painting on the bodywork of both P 1729 and P 1497. The repainting of C 29 and a touch up of Birney 11 has been completed.

In Bendigo, further works have been undertaken on Y1 611, with seat frames and worn laminated panels removed, preparatory to refitting original style Blackwood panels. A new metal end apron has been fabricated in Bendigo and repairs to the other panel made, pending fitting to Launceston No. 14.



# BENDIGO

## BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

[www.bendigotramways.com](http://www.bendigotramways.com)

### From Bendigo Tramways

#### W8 upgrade program

On 19 June Melbourne tram W8 959 left Bendigo for Yarra Trams' workshops at Preston. The tram is one of several to be upgraded and refurbished to the new W8 classification, with funding provided by the Victorian Government. The objective of the program is to produce a small fleet of technically modern trams that look like the classic Melbourne W series cars. The W8 cars have refurbished bogies, new chopper controls, new inverters and improved braking and acceleration systems. Impact-resistant cabs are installed for improved driver safety.

The completion of 959 followed that of the first W8 car, No. 946, the first to be upgraded under the program. The work on this car was undertaken at Preston.

The team working on 959 set new standards of commitment, workmanship and dedication. It was a pleasure to see them enjoying the challenges presented by the job at hand. Towards the end our workshop staff were called upon to work long hours in order to meet the project's tight deadline. With the technical aspects completed, Les Woodfield and his team of painters applied the finishing touches, to the satisfaction of all concerned. As we farewelled 959 we believed we fully met Yarra Trams' expectations.



In appreciation of everyone's effort on 959, a local launch of the new W8 was organised, with excellent print, radio and television coverage being obtained. A segment on the launch appeared on ABC Victoria's 7.00pm news bulletin.

Work on City Circle car 957, the second to be rebuilt at Bendigo, began recently. The underframe components are in our depot and are being assembled, and we are currently waiting for approval to commence the remainder of the works.

#### Restoration projects

Work is proceeding for the Sydney Tramway Museum on Y1 611 and Launceston No. 14. Staining of 611's ceilings and internal panels is moving along, and both aprons for No. 14 are ready to be fitted.

Progress is also being made on the refurbishment of Bendigo No. 7. Both cabs have been removed, and the truck was taken apart for steam cleaning of its various parts. Serious work is required on both ends of the tram's body is required because of past collision damage. In restoring the tram we plan to use GE 247 30kW motors and standardise the running gear with other cars in the fleet. We hope that the funds available this year will enable No. 7 to be fully refurbished and join our Talking Tram service.

#### Operations

Between April and June we were able to complete our program to replace the tram poles in Pall Mall. This was an important project that will help ensure the future of our tram operations for decades to come. Two Sundays in May were earmarked for the changeover, and by Monday, 27 May everything was back to normal. Our overhead crew had successfully

*The number 1 end of tram No. 7 being removed for restoration.*

Bendigo Tramways



*The old poles at the Mundy Street end of Pall Mall.*  
Bendigo Tramways



*Right: The new poles in Pall Mall on 27 May 2013.*  
Bendigo Tramways

*The new walkway constructed at the back of roads 1 and 2.*  
Bendigo Tramways



transferred the two trolley wires from the old poles to the new, similar but taller ones, and then carried out the final adjustments to alignment. Our tram crews did well to keep our service running smoothly. A speed limit was in place, but driving on the wrong track on one leg of each trip was not without its challenges!

For the guided tours of our depot and workshop we have introduced a movement-activated commentary that starts as visitors approach a tram. The innovation uses the tram's existing sound system and has been installed and tested on No. 84 to describe the car's history. The new 'special effect' will be installed over the next 12 to 18 months on other trams that are fitted with sound systems and based at the depot.

To enlarge the space required for work on City Circle car 957, a new walkway has been built for the depot tours at the back of 1 and 2 roads. The new walkway will give visitors an excellent view of the refurbishment work on 957 without interrupting the jobs under way.

### Staffing

In May we farewelled two of our long-serving staff, Jill Moorhead and Denis Rodda. Jill performed a wide range of duties and was awarded life membership of our organisation several years ago. Denis was involved in many tram body restorations and will be missed in the workshop. We wish them both well.



# LAUNCESTON

## LAUNCESTON TRAMWAY MUSEUM SOCIETY

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[www.ltms.org.au](http://www.ltms.org.au)

From Robert Quinn

### Launceston No. 1

Launceston No.1 has been out and about once again – despite being without wheels. Its new truck is being assembled with components from various sources, and is nearing completion.

### Visit to AGFEST 2013

AGFEST is an event organised by volunteer members of the Rural Youth Organisation of Tasmania and is a premier event on the state calendar. When we heard there was an unpowered site still available at this year's event, it seemed an excellent opportunity to put No. 1 on show.

Pfiefer Cranes were engaged to lift and transport the tram from the museum to AGFEST at Carrick and return. Whilst there, we received very positive comments from members of the public about the high standard and finish of the tram's restoration. As a precautionary move, carpet tiles were placed on the floor to protect the new Celery Top Pine flooring.

Despite extensive publicity on local TV and in the press, and our regular operation of No. 29 at Inveresk, we continue to be surprised that there are still local people who do not know of our existence. We can but try.



*No. 1 at AGFEST, before the arrival of visitors - and rain.*

Adrian Fullard

*Our uniformed driver Terry Bramich in a jovial pose.*

Adrian Fullard



## BALLARAT

## BALLARAT TRAMWAY MUSEUM

PO Box 632, Ballarat, Victoria 3353

[www.btm.org.au](http://www.btm.org.au)

## From Dave Macartney and Peter Winspur

Heritage weekend on Sunday, 12 May saw Horse Tram No. 1 in operation, as in recent years. The Museum had been invited to participate in the event. Once again, the weather refused to co-operate, with cold winds and constant rain. This, combined with the main focus of the weekend being downtown rather than in the Gardens, saw poor patronage figures, with just 88 people riding the horse tram and 92 riding the electric tram. Most of the few visitors who did brave the weather availed themselves of the all-day ticket by riding on both. The possibility of giving the horse tram its annual run during the summer is being investigated.

The Mayor of Ballarat, John Burt, visited the Museum on 15 May to discuss matters of mutual interest and re-acquaint himself with our operations. John is Principal of the Ballarat Specialist School, located across Gillies Street from the depot, so is well aware of our presence, particularly as a number of his students have helped out the weekday workforce from time to time in the past. Not to be outdone, the Deputy Mayor, Samantha McIntosh, visited on the following day to update her knowledge of the Museum. Samantha is well credentialed in heritage matters, as she recently purchased *Elsinore*, one of Ballarat's stately old mansions, and one-time home of Pompey Elliott, one of Australia's most highly regarded World War 1 Generals.

Ten days after their visits council surveyors were out measuring up Depot Junction, where it is hoped to shortly carry out major road works to eliminate the problem that cyclists have been experiencing there. It was good to see the top people from the town hall taking an interest again, and it brings back memories of when BTPS founding member, Melton Foo, was in the Mayoral chair. Those were the days!

Some motor vehicles surplus to requirements were recently offered to the various preservation groups through the work of Adrian Ponton, Registrar of Tourist and Heritage Railways with Victoria's Department of Transport, Planning and Local Infrastructure. The Museum lodged an expression of interest and acquired not one but two trucks; a railway gang truck with five-ton lifting crane; and an overhead truck equipped with a tramway bucket. With the Museum's Bedford tower truck over 60 years old, these could be timely acquisitions. Both have required an amount of work to be done to achieve road worthiness, which soaked up a fair amount of cash, but should prove invaluable in the coming years.

On 11 May, No. 27 returned to service after re-metalling of the axle bearings. With the painting of No. 13 almost complete, and with No. 671's trucks having been dispatched to United Group for repairs

*Two very different car bodies, both built by Duncan & Fraser: a 1924 Model T Ford owned by BTM member Colin Holmes in front of No. 27 on 30 June.*

Colin Holmes







*Now 100 years old, No. 40 waits at Depot Junction for a new crew on 11 March 2013.*

Peter Winspur

and refurbishment, the Museum is very close to having the entire operating fleet available for service at the one time, something not often achieved.

#### **No. 40 reaches a milestone**

Ballarat's oldest operable electric car, No. 40, celebrated its centenary on 7 June. It was a low-key event, in keeping with its great age, just a full shift of running on Saturday, 8 June and Monday, 10 June. It performed faultlessly, which was a great relief to the maintenance staff. The tram entered service with the PMTT as No. 35, the last of a batch of eleven maximum traction bogie cars, later classified as C class by the MMTB.

As the W2 fleet grew past the 400 mark, the remaining maximum traction cars had less and less to do. With the conversion of the Elizabeth Street cable lines to electric in 1935 somebody came up with the idea of using their running gear with a modern wide body, similar to the recently introduced W4 class. Only five such cars eventuated. Had the program continued the entire stock of Trust maximum traction cars would have disappeared in the 1930s. Instead, common sense prevailed. The new wide bodies were mated with modern equipment and the W5 was born.

The bodies from the five donor cars to the CW5 project languished for a number of years, with No. 32 giving up its cabs during the construction of Scrubber No. 8, now in the possession of the Museum. When the CW5s finished their days on the Balaclava Junction to St Kilda Beach shuttle in 1956, the maximum traction era was over.

Of the remaining cars, a few were sold off as bodies between 1939 and 1945, but then the State Electricity Commission (SEC) of Victoria showed interest in moving from their all single truck fleets. The remaining cars all found homes eventually on the SEC systems in Ballarat, Bendigo and Geelong. No. 35 was the second last car chosen, so it cannot have been the best of the bunch. It came to Ballarat on 12 June 1951, was renumbered 40, and put in another 20 years' service amassing 376,387 miles, and running in as the last car in September 1971. The Ballarat Tramway Museum has now owned the car for longer than any of its other custodians. and it continues to enjoy a life of comparative leisure.

In late 1979, No. 40 returned to Melbourne to participate in the annual Cavalcade of Transport, and spent Australia Day 1980 running along Flinders Street. It became evident that the tram's bogies were long overdue for major refurbishment and on its return to Ballarat No. 40 saw little use until both bogies were stripped and completely rebuilt. It even received new tyres on the four driving wheels, the only one of our cars to do so to this day.

No. 40 returned to service in February 1985, and continued to run until a defective motor in March 1992 saw it out of service till September 1995. It had looked very tired ever since its SEC days, and in October 2003 a long overdue complete repaint and revarnish inside and out commenced. This painstaking work took until September 2006 when No. 40, looking pristine, took up running again on a charter on the 19 September, the 35th anniversary of closure.

# HADDON

## MELBOURNE TRAMCAR PRESERVATION ASSOCIATION

324 Sago Hill Road, Haddon, Victoria 3351

[www.mtpa.com.au](http://www.mtpa.com.au)

From Kym Smith

### W5 792

Negotiations with the Sydney Tramway Museum have resulted in the Melbourne Tramcar Preservation Association purchasing W5 class tram 792 from the STM. The tram arrived at Haddon during the afternoon of Thursday, 6 June, the unloading being carried out the next morning. W5 792 is currently stored on No. 2 Road pending the availability of undercover storage. In the meantime, to ensure the tram remains watertight, additional tarpaulins have been fitted to both ends.

An assessment of what will be required to restore this tram back to operating condition has been undertaken, and while the restoration will involve considerable effort, the basic structure of the tram is sound. We also have in store many of the body parts that will be needed along with a good stock of English Electric Q2 CK1 controller items. The acquisition of 792 now completes our collection of trams with the various and numerous 'W' classifications, and resolves the uncertainty as to whether we would ever have obtained a suitable tram from Newport.



*W5 792 arrives at Haddon on Mario Mencigar's low loader.*  
Stephen Tyrrell



*Alastair Reither and Kym Smith observe as Mario's truck is driven away prior to 792 being lowered onto Haddon rails.*

Stephen Tyrrell



To put to rest some misinformation that has been circulated regarding the acquisition, the motion that was carried at the MTPA's March Committee of Management meeting to authorise the acquisition of 792 is reproduced below:

*(Motion) That the Committee of Management accept the offer of W5 792 from the Sydney Tram Museum with the following terms:*

- *That the tram be purchased for a nominal sum from Sydney Tram Museum to transfer ownership. (This was set at \$100.00)*
- *That the purchase include a first right of refusal at a comparative sum (original price plus any work undertaken) to Sydney Tram Museum should the MTPA choose to dispose of the tram at any time in the future.*
- *That W5 792 be determined to be the next restoration project for the MTPA back to original condition.*

*W5 792 being towed to Road 2. The missing end matters little as the restoration will see square-cornered windshields fitted to return the tram to its original condition.*

Stephen Tyrrell

- *That every intent will be made that W5 792 will be restored and preserved, however if any major structural fault is found that it may in turn be used to facilitate re-conversion of another W5 tram to original condition.*

*Moved Anthony Smith, Seconded Lindsay Bounds. CARRIED.*

The Association is extremely grateful to the Sydney Tramway Museum for making this tram available for purchase and to Howard Clark and Dale Budd for donating the transport costs to relocate it from Sydney to Haddon.

### Lower Terminus

During April, the earth works for the new Lower Terminus area were undertaken. This involved the



*W5 792 stabled on Road 2 at Haddon after its journey from Sydney.* Stephen Tyrrell

*Anthony Smith and Alastair Reither constructing the new Lower Terminus track.*

Jacqui Smith



*Arthur Ireland sands one of the sliding doors from SW5 849.*

Anthony Smith

*Anthony Smith repaints the roof and trolley base on SW5 849 in the 1980s Burmese Gold roof colour.*

Jacqui Smith







*Jacqui Smith paints the internal window and door cavities on SW5 849.*

Anthony Smith

*One of the new storm curtains installed in W3 663.*

Anthony Smith

relocation of a major stormwater pipe and removal of the concrete foundations that used to support the 'B' Van store. Following the earthworks, permapine sleepers and rail were placed in position, plated and secured to sleepers with dog screws. Filling and levelling with blue metal occurred during early May after the bonding of the rail joints was completed, with this area now filled to rail head as it is proposed to construct a single tram shed in this location.

### Tram restoration

During April work commenced on refinishing the roof of SW5 849. Both trolley bases were replaced with overhauled units and the two route boxes that had previously been removed for overhaul were reinstalled. The roof has been repainted and only requires minor touching up to complete. The inside of the car is also receiving attention with the remaining ceiling coves (the arched panels that on most trams featured advertisements) and upper bulkhead repainted. Prior to the removal of the drop-centre sliding doors, final adjustments were made to the operation of the pneumatic door pistons after which these doors were removed for refurbishment. The old paint and varnish on the doors has been removed and the surfaces sanded. The outside areas have been primed and beadings around the glass panels are being taken out to remove all traces of old varnish and dirt. All of the fixed trim in the drop-centre area has been scraped and revarnished, and the two motorman's internal doors have also received their final coat of clear lacquer and have been undercoated on the painted side.

New drop-centre storm curtains were installed in W3 663 although this turned out to be more difficult



than anticipated due to insufficient clearance provided in the side guides for the blind runners when the drop-centre quarter panels were refurbished. To overcome this problem it was necessary to carefully grind and file these strips to enlarge the openings after which the fitting and operation of the storm curtains was a straightforward affair. The manufacture and fitting of the side destination mechanisms are now the only items needed to complete this tram's restoration.

# WHITEMAN PARK

**PERTH ELECTRIC TRAMWAY SOCIETY (INC)**

PO Box 257, Mount Lawley, Western Australia 6929

[www.pets.org.au](http://www.pets.org.au)

From Michael Stukely

## Traffic operations and service cars

Patronage through April, May and June was generally good, with services operating on a seven days per week basis in the April school holidays proving popular. After the large number of lost running days in summer due to high fire danger, it is pleasing to report that no further days were lost in March or April.

The main service car in March was W2 441, with W7 1017 also in regular use; W2 329 returned to service after a four-month break, and Fremantle 29 ran occasionally. No. 1017 took over as the main service car in April and May, with assistance from 441 and 329 during April. Two cars ran on the Park's annual Classic Car Show day on 28 April. SW2 426 and W2 393 have both been relegated to emergency use only, due to the worn state of their wheels.

## New arrivals

On 17 June, former Melbourne trams SW6 891 and W7 1023 arrived at the Society's Car barn after being transported by road from Bendigo. The following day they were unloaded to PETS tracks using a 55 and a 75 tonne crane; they were then moved to the rear compound. Together with the trams, we received a

supply of some trolley poles, overhead fittings and aluminium type tram saloon doors.

Thanks go to Bob Pearce, our COTMA representative, who carried out the lengthy negotiations for these important acquisitions over several years and arranged the carriers for the move; to Noel Blackmore for arranging the cranes for unloading and supervising the unloading operation; and to the other members who assisted with this job. We gratefully thank Bendigo Tramways for their assistance in storing the trams for us over several years, and for arranging their loading for the move west.

Car 891 will be recommissioned in due course after some work on the roof and motors is completed. W7 1023 was originally to have been stripped for us in Bendigo for parts, but these plans were changed. Options for its future use at Whiteman Park will now be carefully assessed.

Our Melbourne W2 class trams, the workhorses of our fleet, are now all between 86 and 88 years old, and it is showing. They are becoming significantly less reliable, and generally worn out, which is hardly surprising. Most have now seen over 25 years of

*The low loader carrying W7 1023 is manoeuvred across the Car barn fan on 18 June.*

Ric Edwards





### New trams for the Perth Electric Tramway Society

The Society approached COTMA in 2008 to obtain one tram for operations and one tram for stripping, to augment our operating fleet and to provide one newer tram to permit the resting of the ageing W2 type trams.

This was approved and inspection of several trams in the plate shop at Preston with Darren Hutchesson of Bendigo took place, from which a recommendation to PETS Council was made. The Council agreed that PETS would apply for W7 1023 and W7 1032 on the basis that 1023 would be made operational, and 1032 would be stripped for parts. The application was made to COTMA and then sent to Mike Ryan of VicTrack for approval. This was given and the two trams were transported to Bendigo in early 2010.

While the trams were in Bendigo, the Museum of Transport and Technology (MOTAT) in Auckland, New Zealand, applied for another tram for their operations. Agreement was reached between VicTrack, PETS and MOTAT whereby W7 1032 would be given to MOTAT, provided PETS was given another tram in its place. SW6 891 was subsequently offered and accepted. Under the agreement MOTAT would arrange for SW6 891 to be brought up to a standard where the tram would be ready to run when it arrived in Perth.

After the COTMA conference in 2012, PETS member Bob Pearce travelled to Bendigo to meet Jos Duivenvoorden, the Tramway Superintendent at Bendigo Tramways, and to inspect SW6 891.

Following completion of the work on 891 at Bendigo, including some test running, 1023 and 891 were both steam cleaned, and plans were made for their transport to Perth using the Victorian firm, Rob Stribley Transport. The trams left Bendigo on 13 June 2013 and arrived in Perth on 17 June, a day earlier than expected.

Thanks are extended to Mike Ryan, who has since retired from VicTrack; Warren Doubleday and the Executive team at COTMA; Jos Duivenvoorden; Darren Hutchesson; the staff at Bendigo Tramways; and Gene Marek of Rob Stribley Transport who helped with the movement of the trams. We also thank Noel Blackmore, who arranged cranes and undertook other tasks at short notice, and the PETS members who made themselves available also at short notice to help with the unloading.

The acquisition of an SW6 class tram fulfils a desire of the members to have at least one representative of each major type of W series Melbourne tram, the exceptions being examples of the W1, W3, and CW5 classes.

Bob Pearce



*SW6 891 is lifted from the low loader onto the main line east of the Car barn fan on 18 June.*

Ric Edwards

*Duncan McVicar steadies a Melbourne No. 15 truck as it is placed onto the newly built truck storage road south of the Lindsay Richardson Car barn on 7 November.*

Lindsay Richardson



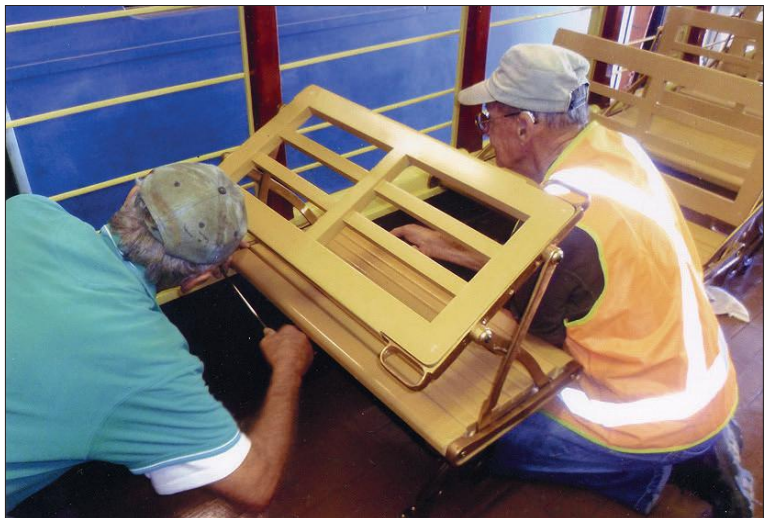
service in Whiteman Park, after working hard for 60 or more years in regular commuter service in the streets of Melbourne. With the addition of two newer trams to our fleet - W7 1017 and, soon, SW6 891 - we will be able to spread the regular service workload among our trams much more effectively. This will prolong the working lives of all our trams.

#### **Adelaide H 371**

Adelaide H 371 ran under power for the first time at Whiteman Park on 15 May. It ran from the Car barn to the Village Junction terminus so that its clearances could be tested on all curves as its body is significantly longer than our Melbourne and Western Australian trams. We are pleased to report that it passed the test

*Ric Edwards installs rivets to secure the platform concertina gates for WAGT B 15 on 29 May.*

Lindsay Richardson



*Bryan Adcock and Jack Kendall installing a reversible seat in the saloon of WAGT (Perth) B 15 on 27 March.*

Lindsay Richardson



satisfactorily. A number of items on the tram require attention and adjustment, and work on these is proceeding.

### New development plans

The Society has recently been very fortunate in receiving a most generous private donation from a Western Australian benefactor. The donation will enable us to build, under contract, a new three-road carbarn with capacity to hold nine bogie trams, complete with track and overhead. This will mean

that, at long last, all of our trams and tram bodies will be able to be kept securely under cover. Detailed building plans are now in preparation, and the process of obtaining the necessary approvals has started. Lindsay Richardson has kindly agreed to manage this exciting special project for PETS.

### General

Our annual Rail Safety Compliance audit by the Regulator was carried out on 26 April, and we again passed with flying colours.

## ST KILDA

### AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) INC

PO Box 213, Salisbury, South Australia 5108

[www.trammuseumadelaide.com.au](http://www.trammuseumadelaide.com.au)

From Colin Seymour and Kym Smith

### Operating fleet changes

With our focus over the past two years on setting up the new tram depot and workshop our trams have taken a back seat. The only exception has been refurbishment work undertaken on H1 381, which was carried out during this time in the Northern Depot.

A major re-shuffle of trams has taken place since the concreting earlier this year of Road 4 as well as the

aisle between Road 4 and the northern wall. H cars 362, 378 (restaurant tram) and 364 have been relocated from the new depot to Road 9 in the Northern Depot for public display. Melbourne cars W2 294 and W7 1013 have been moved from the bodyshop, where 1013 was repainted by Charlie Rodgers and Jack Pennack. After the tram was relocated to Road 10, Kym Smith completed lining and signwriting on the car, and



*Car 381's interior, showing its re-chromed seat frames and other fittings, freshly painted floor sheets and new motor hatch trims.* Ian Seymour

*Gold lining was applied recently to newly-repainted W7 1013 seen on Road 10 in the Northern Depot on 28 June 2013.*

Ian Seymour



Michael Crabb repaired the door engines with assistance and guidance from Tony Smith, an AETM member from the Melbourne Tramcar Preservation Association. The car has now returned to traffic after an absence of several years. W2 294 is also back on the traffic roster. Adelaide drop-centre tram 264 also returns to service after a two-year break. It replaces drop-centre car 282 that will have a break from regular service.

### Bodyshop

H1 381 has now been moved to the bodyshop to enable its refurbishment to continue in a suitably

equipped restoration facility. The length of this tram allows only a small tram to be stabled in the bodyshop with it. This will be Ballarat 21, which was formerly Adelaide car No. 10.

Bruce Lock and Charlie Rodgers have been carrying out body panel repairs at the western end of car 381.

### New depot

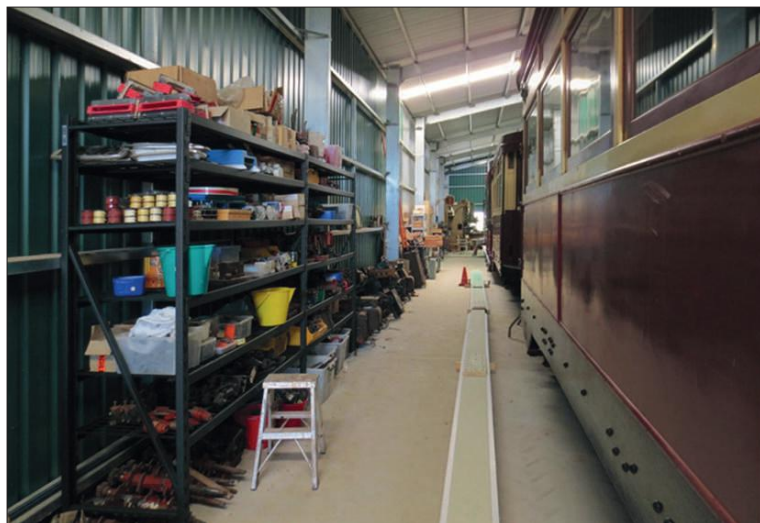
New shelving has been installed along the side walls of Roads 4 and 6. This has enabled the AETM and COTMA spares to be relocated from temporary storage in the wheel lathe shed.

*The last piece of exterior fill has been applied to H1 381. The angular panel has been touched up with silver and carnation red paint after rust removal and patching.*

Ian Seymour







*New shelving has been installed along the new depot western wall adjacent Road 4.*

Ian Seymour



*Charlie Rodgers, Christopher Bennett, Michael Crabb and Jack Pennack constructing new trolley troughing modules in the workshop area at the rear of Road 4.*

Chris Summers

Overhead troughing is being prepared for erection over Road 4 in the new depot. This will allow some service trams to be stored on Road 4 from which they will have ready access to the main fan and tram departure point. The change will reduce the shunting required to move trams to and from the Southern and Northern depots, a procedure that has been necessary since the demolition of the old original depot.

### **Samphire Road crossing**

The Samphire Road crossing was renewed on 10 May 2013. In a combined effort North East Demolitions trenched out those portions of the road

surface that corresponded with the gaps existing between the underlying wooden sleepers, after which an AETM track gang inserted 15 steel cross-rails. North East Demolitions then back-filled the unsealed road surface.

### **Model Railway Show**

The AETM again participated in the Model Railway Show at the Wayville Showground over the Queen's Birthday weekend in June. Copies of the DVD *Tramcar Tapestry* and surplus books were sold together with copies of AETM and Heritage Rail SA brochures.

*North East Demolitions trench out the road surface between the wooden sleepers on 10 May, allowing an AETM track gang to insert cross-rails at the Samphire Road crossing.*

Chris Summers



*Bill Edmonds manned the stand at the Model Railway Show held on the Queen's Birthday weekend.*

Ian Seymour



*A full load enjoys a ride on Birney 303 on 28 April 2013.*

Peter Vawser





*Perth Electric Tramway Society's W7 1017 rounds Camel Curve in the Village Mall after leaving the Village Junction terminus on 26 April.*

Michael Stukely



*Fremantle Municipal Tramways bogie car No. 29 on Stockman's Triangle at Whiteman Park during Easter 2013.*

Perth Electric Tramway Society collection