

Proceedings
of the
Thirteenth Conference
of
Australasian
Tramway Museums

Hobart Tasmania
August–September 1996

Proceedings of the Thirteenth Conference of Australasian Tramway Museums

Continues: Proceedings – Conference of Australasian Tramway Museums
 ISSN 0314-8246

1. Street Railroads – Museums – Australia – Congresses – Periodicals
 ISSN 0314-8246

Published for: The Council of Tramway Museums of Australasia Inc.
 5 Felecia Street
 Mordialloc, Victoria
 AUSTRALIA 3195

by: The Tasmanian Transport Museum Society Inc.
 GPO Box 867J
 Hobart, Tasmania
 AUSTRALIA 7001



Contents

Conference Organising Committee	4
Participating Societies Organisations Abbreviations	4
List of Delegates and Guests	4
Programme of Activities	5
Details of Conference Sessions	7
Service Scheduling for Tramcars	8
Helping Them to Give it to You!	
A look at the Taxation Incentives for the Arts Scene	10
Tramcar Cleaning	16
Is the Volunteer Model Sustainable?	18
National Guidelines for Regional, Local and Specialised Museums	19
Car Parking at Museums	29
Keeping the Rails Cleaned and Lubricated	32
Collections—Are we Losing Them?	33
Documenting Electrical Operations	36
Proper Care of Photographic Archives	49
Depot Security	51
Public Transport to the Grand Prix	51
Wheels, Skids, Pantographs and Bow Collectors	54
The \$ Value of Trams	56
Storage of Explodables and Inflammables	57
The Internet and How it Can Help You	58
Conservation Planning in a Tramway Museum Environment	59
Vision Testing for Drivers	65
The Christchurch Tram Transporter	67
The Rottneest Island Railway	74
Icons, Trams and Tourism	75
Twelfth Report, 13 th Australasian Tramway Museums Conference Hobart Tasmania	78
Council of Tramway Museums of Australasia Chairman's Report 1996	79
Deputy Chairman's Report 1996	82
Executive Officer's Report 1996	83
Treasurer's Report 1996	85
Trolley Wire Report	87
Tramway Topics Report	89
International Association of Transport Museums	
Report to 13 th Biennial Australasian Tramway Museum Conference	90
Council of Tramway Museums of Australasia Inc. Minutes of Twelfth Conference General Meeting	92
Council of Tramway Museums of Australasia Inc. Minutes of Second Annual General Meeting	97
Some Notes on Hobart Tram and Trolley Bus Routes to be traversed on 31 August and 1 September 1996	98
Appendix A – Council of Tramway Museums of Australasia First Annual General Meeting 1995	103
Appendix B – Extract from Minutes of the Australian and New Zealand Tramways Conference 1934	106

Conference Organising Committee

David Verrier (Convenor)
 Greg Johnston
 Bill Kingsley
 Don Lange
 Les Withington

Participating Societies Organisations Abbreviations

Australian Electric Transport Museum	AETM
Ballarat Tramway Preservation Society	BTPS
The Bendigo Trust	TBT
Brisbane Tramway Museum Society	BTMS
Council of Tramway Museums of Australasia	COTMA
Launceston Tramway Museum Society	LTMS
Melbourne Tramcar Preservation Association	MTPA
Perth Electric Tramway Society	PETS
Public Transport Union	PTU
Rockhampton City Council	RCC
South Pacific Electric Railway Cooperative Society (Sydney Tramway Museum)	SPER (STM)
Tasmanian Transport Museum Society	TTMS
Tramway Historical Society, Christchurch	THS
The Tramway Museum Society of Victoria	TSMV
Wellington Tramway Museum	WTM

List of Delegates and Guests

Philip Archer	LTMS	Jim McCrum	PTU
Rod Atkins	TMSV	Robert Merchant	SPER
Peter Beale	WTM	Len Millar	BTPS
Dennis Bell	TBT	Morris Moller	WTM
Phillip Bertram	BTPS	Kaye Morgan	TTMS
John Bullen	TBT	David Neish,	RCC
Howard Clark	SPER	Dennis O'Hoy	TBT
Ian Cooper	TTMS	Barry Ollerenshaw	WTM
Anthony Cody	SPER	Scott Parker	PETS
Bill Cox	THS	Bob Pearce	PETS
David Critchley	SPER	Bryce Pender	WTM
Bruce Dale	THS	John Phillips	BTPS
Carolyn Dean	BTPS	John Radcliffe	AETM
Trevor Dennhardt	PETS	Lindsay Richardson	PETS
Warren Doubleday	BTPS	John Shanks	THS
Ken Flood	TTMS	John Shaw	PETS
Richard Gilbert	BTPS	Don Smith	TTMS
Martin Grant	PETS	Les Stewart	WTM
Edgar Harrison	TBT	Keith Stodden	TMSV
Peter Hyde	BTMS	Craig Tooke	MTPA
Greg Johnston	TTMS	Terrance Verney	PETS
Peter Kahn	SPER	David Verrier	TTMS
Stuart Keenan	SPER	Graham Weir	WTM
Keith Kings	TMSV	David White	TMSV
Bill Kingsley	TTMS	Ron White	AETM
Don Lange	TTMS	Les Withington	TTMS
Peter Letheby	AETM	Bruce Worthington	SPER

Saturday	Noon	Registration Westside Hotel
31 August 1996	2.00 p.m.	Bus tour of former Hobart tram and trolley bus routes
	6.00 p.m.	Harbour cruise including evening meal
	10.00 p.m.	Return to Westside Hotel

Sunday	7.30 a.m.	Breakfast
1 September 1996	9.30 a.m.	Buses to Transport Museum
		Train rides
		Barbecue lunch
		Official welcome by TTMS President Graham Clements
	4.30 p.m.	Buses to hotel
	6.30 p.m.	Dinner Westside Hotel
		Museum Reports—Bendigo, Wellington, Adelaide, Ballarat, Brisbane and Portland
Monday	7.30 a.m.	Breakfast
2 September 1996	9.00 a.m.	First Session Papers/Workshops
	10.30 a.m.	Morning tea
	11.00 a.m.	Second Session Papers/Workshop
	12.30 p.m.	Lunch
	1.30 p.m.	Third Session Papers/Workshop
	3.00 p.m.	Afternoon tea
	3.30 p.m.	Fourth Session Papers/Workshop
	5.00 p.m.	Finish
	7.30 p.m.	Official Dinner
		Guest speaker Ian Cooper, tramway historian and foundation member of the TTMS
Tuesday	7.30 a.m.	Breakfast
3 September 1996	9.00 a.m.	Fifth Session Papers/Workshop
	10.30 a.m.	Morning tea
	11.00 a.m.	Sixth and Final Session Papers/Workshop
	12.30 p.m.	Lunch
	1.30 p.m.	Bus to Metro workshops and depot
	5.30 p.m.	Return to hotel
	6.30 p.m.	Evening Meal
		Museum Reports—Christchurch, Haddon, TMSV, Sydney, Perth, Launceston and Auckland
Wednesday	7.30 a.m.	Breakfast
4 September 1996	9.00 a.m.	COTMA Conference General Meeting
	10.30 a.m.	Morning tea
	11.00 a.m.	Continuation of Conference General Meeting
	12.30 p.m.	Lunch
	1.30 p.m.	Free time
	3.30 p.m.	Buses depart Hotel for Glenorchy
	4.00 p.m.	Civic Reception Council Chambers, Glenorchy, hosted by City of Glenorchy Mayor, Alderman Terry Martin
	5.00 p.m.	Buses depart for Transport Museum
	6.30 p.m.	Transport Museum night running
		Dinner at Transport Museum

Post Conference

Thursday 5 September 1996	7.30 a.m.	Breakfast
	10.00 a.m.	Bus departs Westside Hotel for Bush Mill via points of interest on former Bellerive-Sorell railway
	1.00 p.m.	Lunch Officer's Mess, Eagle Hawk Neck
	3.00 p.m.	Arrive Bush Mill—recreated sawmill, train rides—two locomotives in steam (Bus will take those interested to Devil Park/Port Arthur)
	6.30 p.m.	Evening meal Bush Mill—night train running
	8.00 p.m.	Depart for Hobart
	9.15 p.m.	Arrive Hotel
Friday 6 September 1996	7.00 a.m.	Breakfast
	8.00 a.m.	Bus departs for Launceston
	10.15 a.m.	Inspect Metro's Howick Street Depot and West Launceston tram and trolley bus routes
	12.00 Noon	Penny Royal tram
	1.00 p.m.	Lunch The Gorge
	2.00 p.m.	Launceston rail yard redevelopment and Launceston Tramway Museum LMT No. 29
		Inspect northern and eastern suburbs tram and trolley bus routes
	5.00 p.m.	Evening meal Great Northern Hotel Tram Bar
	6.15 p.m.	Devonport contingent depart Tigerline coach, overnight Formby Hotel Devonport
	6.45 p.m.	Bus departs for Hobart
	9.00 p.m.	Arrive Westside Hotel
Saturday 7 September 1996	10.00 a.m.	Derek Morse coach pick-up at Formby Hotel for Don River Railway
	12.30 p.m.	Lunch Don River Railway
	8.00 p.m.	Australian Railway Historical Society Meeting at Don River Railway

Details of Conference Sessions

9.00 a.m. – 10.30 a.m. Monday, 2 September					
First Session	9.00 a.m.	Service Scheduling for Tramcars <i>Warren Doubleday</i>	ID	Tax Incentives for the Arts <i>Len Millar</i>	S
	9.45 a.m.	Tramcar Cleaning <i>Ron White</i>	ID	Is the Volunteer Model Sustainable? <i>Les Stewart</i>	ID
11.00 a.m. – 12.30 p.m.					
Second Session	11.00 a.m.	National Guidelines for Regional, Local and Specialised Museums <i>John Radcliffe</i>			ID
	11.45 a.m.	Car Parking at Museums <i>Bill Kingsley</i>	ID	Keeping the Rails Cleaned and Lubricated <i>Dennis Bell</i>	ID
1.30 p.m. – 3.00 p.m.					
Third Session	1.30 p.m.	Collections—Are we Losing Them? <i>Richard Gilbert</i>	S	Documenting Electrical Operations <i>Craig Tooke</i>	ID
	2.15 p.m.	Proper Care of Photographic Archives <i>John Phillips</i>	S	Depot Security <i>Discussion</i>	PD
3.30 p.m. – 5.00 p.m.					
Fourth Session	3.30 p.m.	Public Transport to the Grand Prix <i>Jim McCrum</i>			S
	4.15 p.m.	Wheels, Skids and Pantos <i>Panel</i>	ID	The \$ Value of Trams <i>Peter Hyde</i>	ID
9.00 a.m. – 10.30 p.m. Tuesday, 3 September					
Fifth Session	9.00 a.m.	Storage of Explosives and Inflammables <i>Len Millar</i>	ID	The Internet <i>Les Stewart</i>	S
	9.45 a.m.	Conservation Planning <i>Warren Doubleday</i>	S	Vision Testing for Drivers <i>Bill Kingsley</i>	ID
11.00 a.m. – 12.30 p.m.					
Sixth Session	11.00 a.m.	The Rottneest Island Railway <i>Lindsay Richardson</i>			S
	11.45 a.m.	The Tram Transporter <i>John Shanks and Bruce Dale for David Hinman</i>	S	ICONS, Trams and Tourism <i>Richard Gilbert for Neville Gower</i>	ID
Key					
S		Speaker			
ID		Introduced Discussion			
PD		Pure Discussion			

Service Scheduling for Tramcars

Presenter: Warren Doubleday
Session Secretary: Bob Merchant

Session illustrated with overhead projection slides.

Purpose

- review what is done and when
- record keeping
- is it satisfactory?
- are we doing too much, or not enough?
- safety and reliability
- relationship to conservation practices.

Looking at what, when and why.

Is it working for your tramway,

breakdowns on the road—serious ones.

The introduction of Rail Safety Accreditation will require the formalising of often informal processes that were done anyway but often without any paperwork. Paperwork will certainly increase with the need for meeting accreditation standards.

Our procedure refers to our Fleet Conservation Policy, as servicing is done with the museum practices in mind. We are not running a major public transport network where cost and reliability is a major factor.

What we do

- Fleet Conservation Policy
- Pre run out
- Minor (A) every 200 trips or 12 months
- Major (B) every 600 trips or 3 years
- Periodic (C) – Inspection, every 1200 trips or 3 years
- Pre commissioning, after lifts etc.

** For Ballarat Tramway Museum a trip is 2.6km*

Pre run outs by crews.

Minor and Major by trained personnel.

Periodic, which can coincide with a major, done by experienced and qualified personnel.

Periodic – also forward plans any work necessary on the tram.

Pre-commissioning—as for periodic.

Trips and problems at Ballarat are recorded in the sign-off book, as is all maintenance.

This sign-off book gives a history of the tram and is part of its heritage.

Forms give a safety consideration.

What others do

- The PTC (Melbourne), do scheduled maintenance on W trams every 100 hours
 - Body
 - Electrical
 - Mechanical
 - Pit
 - Wheel Condition

** City circle about 8km/hr, suburban about 20km/hr.*

Note travel difference between City Circle and street running, 800 to 2000 kilometres—but hours are easy to record.

A lot more complex equipment is now fitted, such as the electronics on W cars today, than when built.

Trams receive a lot harder running today often by people for which the job is just a job and could not care less.

Questions/Discussion

Scott Parker: reported that cars at Whiteman Park run a 4½km round trip and maintenance is carried out at between every 500 to 800km run. Cars complete a trip sheet and few problems have been encountered.

Barry Ollerenshaw: their cars run a 4km round trip with a 3-monthly inspection. Driving staff carry out a pre-service check before taking a car out.

Peter Hyde: trams at Ferny Grove only run about 2½km a week, that is, very low mileage. Therefore an annual inspection is deemed sufficient. Crews fill out a defect sheet if trouble is encountered. Their mercury arc substation, however, requires weekly servicing.

Ron White: trams at St. Kilda run between 2 and 4km a week and regular servicing is carried out every 3 months. Crews fill out a report sheet for defects on trams.

John Shaw: the defect book at PETS covers trams, track and overhead and it is easier to trace continuing problems which can be followed up by maintenance staff.

John Bullen: Bendigo carries out minor services every 250km or 30 trips which cover such items as lights, brakes, poles and controllers. A major service is carried out after every eighth minor service or 2000km. This covers bearings, readjustment of poles, meggering motors, etc. A fault book is filled in by drivers and a card system is maintained for each car, based on the former SEC card system.

John Shaw: asked if Bendigo's operations were scrutinised by outside bodies. John Bullen replied that only the DLA carried out inspections, covering cranes, slings, etc. There is a legal requirement to meet Occupational Health and Safety requirements.

Warren Doubleday: added that for Ballarat and Bendigo a zero alcohol level for crews was the only legislative control at present. Rail safety regulations will require detailed procedures for trams and track maintenance.

Barry Ollerenshaw: New Zealand requires a museum tramway to have a safety plan which is audited each year. Non-compliance to your plan can result in operations being closed down.

Craig Tooke: suggested a committee be set up to formulate uniform procedures for COTMA museums.

Warren Doubleday: the differing operating conditions between member museums preclude this. Rail safety legislation is on a state-by-state basis and no uniform Federal legislation is planned at present.

Helping Them to Give it to You!

A look at the Taxation Incentives for the Arts Scheme

Presenter: Len Millar
Session Chair: Martin Grant
Session Secretary: Terry Verney

A fact of life for Tramway Museums is the never-ending quest for exhibits, spare parts for the exhibits, money to restore the exhibits and money to operate the exhibits.

In these days of "Economic Rationalism" and "Doing more with less" a lot of our usual sources of monies and exhibits have almost dried up

What I would like to do today is to briefly visit some traditional or under-used sources of monies and exhibits – and then to zero in the Tax Incentives for the Arts Scheme. This Commonwealth Government-supervised scheme is a possible source of some quite serious supplies of exhibits. The word "exhibits" I am using in a very broad sense to include not just actual 1 to 1 scale trams, but parts for trams, photo collections about trams, ticket collection and/or any other area of tramway memorabilia that your Museum may wish to acquire for its operation, displays or archives.

But first – EXISTING sources of exhibits or monies.

With a bit of head-scratching I have been able to come up with seven ways of prising money or things out of Governments, Companies or People:

1. Donations

In Australia, a taxpayer may deduct from his or her taxable income any monies that have been donated to charitable institutions. I believe each and every Australian constituent member of COTMA encourages benefactors to follow this route. So long as the institution is approved by the Australian Taxation Office, and the donation is for \$2 or more, then that donation is tax-deductible.

The donor needs to obtain a receipt for the donation and if the item is queried in a random Tax Office audit, the donor needs to be able to authenticate the donation by production of the receipt. For many, many years I have kept in my own tax papers a piece of paper with the notation "KJ/80/17 dated 24 July 1964". That reference is of a letter to the Tramway Museum Society of Victoria back in 1964 from the Tax Office setting down its recognition of the TMSV as a charitable institution. Each Tramway Museum would have such a letter.

Because we attract new members continually, we need to alert these new people (and remind our existing members) of the benefits of donating money to our "cause". Appeals for money to rewind a blown motor or to transport a body into our care, or bread and butter matters such as members foregoing the right to reimbursement for postage or whatever by decreeing the expenditure to be a donation are all excellent ways of attracting donations.

The Ballarat Tramway Museum has recently put in place a policy to codify or regulate expenditures to be classed as donations, because we don't want to jeopardise the tax-deductibility status we currently enjoy.

In New Zealand I understand the situation to be that your Department of Inland Revenue recognises donations to registered charities and trusts. A donation rebate for generosity to an

approved charitable organisation can be claimed for a receipted donation of \$5 or more. The rebate is at the rate of 33¹/₃%, and has a ceiling of only \$1,500 per annum.

2. State Government Grants

Across the democratic world, our elected leaders like to make themselves look good in any way they can. Apart from unsolicited grants just before an election when these grants become known as pork-barrelling, our governments will entertain applications for grants under certain pieces of legislation and prescribed guide-lines.

In these "enlightened" times grants are usually granted on a tit-for-tat basis. "I'll give you a dollar for every dollar you raise" or worse! We have seen a host of employment scheme grants around Australia, because community works tied to a short-term boost in local employment boost are seen as politically "good". Our constituent museums have taken to this sort of scheme with a vengeance – although the down side is an horrendous amount of time spent by US supervising THEM. And from bitter experience the THEMs are often poorly-motivated, long term unemployed people resentful of being forced to earn little more than the "dole" for what they consider to be dead-boring work. Community service order workers are a mixed blessing too. I understand!

Some types of applications will be flavour of the month with one State Government Department in this year, but then mysteriously fall from favour the next. Your local parliamentarian should, if he or she is worth his or her salt, be able to provide valuable inside information on this veritable maze.

3. Local Government Works

Our local Councils seem these days to operate on the smell of an oily rag, if you believe them, but it is possible to winkle your way in to the hearts of a few ward councillors and Chief Engineers, to get that special task on to Council's Forward Estimates. And it is delightful to see the co-operation grass-roots council employees will offer, when they can. At Ballarat, we were able to get the Council road vacuum cleaner truck to return to base along the tram tracks in Wendouree Parade on a Friday afternoon. That joy was unfortunately a bit short-lived when they discovered that the vacuum cleaner was so powerful that it was starting to suck bits of old bitumen surfacing up from alongside our rails.

But while we lost that "service", the council have now started to re-surface holey bits of roadway around our track when they have a bit of hot mix left in the truck at the end of a project somewhere else in the City!

4. Advertising and Sponsorship

The purists in our ranks probably still rue the day that their city's tramway operator first started carrying external advertisements. May be they're "Ugly as sin" to you, but an attractive source of revenue to me! We have seen the advent of all-over vehicle advertising and in Melbourne at least the all-over advertising has even been illuminated.

What our purists seem to forget is that advertising has been inside our trams since Day One, and several operators were not averse to putting ads outside not long after their trams first turned a wheel in traffic. You had to look really hard to find the fleet number on a Kalgoorlie tram!

Therefore precedents exist for most of us to carry advertising material for any Company that has kindly donated us something or money. The sponsoring company wants maximum exposure, of course, and in as many different "Day-Glo" colours as you can find. AND he wants it to operate on every operating day. AND he wants the signage to stay on until hell freezes over!

You could look at installing a display panel in your depot enshrining the names of significant sponsors. Bendigo make a feature of that ideal!

You will be surprised how easy it actually is to stump up a supply of dollars from the captains of industry and commerce. They are a bit like politicians, really! They like to be seen to be actively supporting your Good Cause.

5. Corporate Dollars

It may take up some of your valuable free time, or require a “flex” day, but nothing helps your cause better than bearding the corporate lion in his den, to prise a dollar or two out of him. From my marketing training and experience, I’d like to pass on the KEY clue, which is that you HAVE to have an ANGLE (or a hook) to attract the busy reader’s attention. That angle or hook to catch the fish (er, I mean CEO) needs to be a motivational one.

By all means write to the Chief Executive Officer of this Company or the Marketing Manager of that Company setting out a well-reasoned BUT BRIEF appeal for help. But do your chances a great favour by actually asking in the letter for a face-to-face appointment!

Your President or Chairman MUST go with your Marketing or Finance Manager, because that is the quiet way of communicating how important you see the Company CEO to be and how important your cause is, too! Try very hard to get your appeal on to just ONE page – because that is the secret of all good marketing. KISS! Keep it simple, stupid! It is a proven marketing adage that you will get virtually all of your one page read by every reader, whereas most busy executives seem to lose interest if they have to turn the page on any document.

When you are ushered in the door of the CEO, SMILE at him a whole lot, and remember his name. Remember to keep to the point, but don’t forget to convey your enthusiasm. You DO have a good cause to sell. Before you leave, try and obtain a commitment for action. “Can I supply you with further information? I can bring it in to you next week?” “Could you keep me posted on any problems you encounter deciding our case?” “Can we turn on a launch ceremony with the media there to record your company’s generosity?”

6. After They’ve Gone

We all have horror stories to recount of un-sympathetic or ignorant executors flogging off or even going to the tip with valuable photo collections or other memorabilia after a member has died. We should regularly invite our members to frame in their wills wordage that ensures that those invaluable sources of archive material are not lost forever, or become the subject of spirited bidding at a clearing sale auction.

Similarly, we should encourage our members (and, of course, the general public) to leave us a bequest in their wills, to remember them by. Some people do not like to even contemplate such matters in advance, but a little discreet effort on our part should surely encourage those in denial mode to think objectively about the matter. The prospect of a “lasting monument to your generosity” is a persuasive tool, if used tactfully.

7. Patrons

Former Premiers, Transport Ministers, eminent media personalities, wealthy captains of industry all make excellent patrons for museums. They can attract media attention just by opening their mouths. They can add clout and political savvy to your never-ending quest for dollars. They make invaluable leaders for your delegations to government or to your targets in industry and commerce.

The track record of patrons across the spectrum of organisations WITH patrons is that they are quite generous not just with their time, but with their money.

It is important with patrons to keep them well informed of your activities, because they can whisper in ears in the corridors of power on an unofficial basis using recent developments as an opener. The old “networking” syndrome feeds on news, remember.

Before I leave this area, four things warrant airing! Firstly, never, ever put difficulties in the way of someone’s generosity. Don’t allow unnecessary red tape to get in the way of a donation. Second. Make sure you thank every donor publicly—in your house magazine, in the media, whatever. Make them feel good that you recognise and salute what they’ve done! Third. After they’ve made their donation, don’t FORGET them. I believe you have an obligation to keep your donors informed of your museum’s activities virtually in perpetuity. Invite them to your special events, your social and annual general meetings. Acknowledge them from time to time. Who knows. It may winkle another donation out of them. And finally, I suggest that MOTIVATION is the key to obtaining something

from some-one who may not initially be thinking generously. Think through the issues that may motivate someone in your sights. "What can I give them in return for their sponsorship?" "What will make them feel good if they give us those photos?" "Why should they give US that money rather than that other mob?" "Can I wangle some media coverage out of his generosity?"

AND NOW, on to THE TAX INCENTIVES FOR THE ARTS SCHEME

Let me start by quoting from an information brochure:

The Taxation Incentives for the Arts Scheme encourages gifts of significant cultural items to public art galleries, museums and libraries by offering donors a tax deduction for the market value of their gifts, under sub-section 78(6) of the Income Tax Assessment Act 1936.

The Department of Communications and the Arts administers the scheme with the advice of the Committee on Taxation Incentives for the Arts (TIA for short). The Committee advises the Secretary of the Department on the approval of valuers to participate in the scheme and examines donations to ensure they conform with the scheme's requirements."

John Radcliffe, by the way, put the fear of God in to me yesterday because he told me he served on the Committee for six years.

And now in plain English can I explain the scheme by way of a possible scenario.

John Citizen visits your tramway museum one Sunday. After a wander up and down the stabled trams, he bails up the OIC and says "I've got an old tram in a shed at the back of my home. Would it be of any interest to you?" After a few probing questions your OIC determines that the long-lost "Missing Link" in your collection does exist – after all these years! Whoopeeee! It may be a bogie Brill or a W8 or a genuine Sydney G class. But before your OIC can pick his jaw up off the kiosk floor, the visitor ruins it all by saying "It must be worth a quite a few quid these days!"

Well, all is not necessarily lost! Your OIC will soon be able to give the visitor an information kit about TIA, and you can commence the little serious game of getting him to donate the absolute gem of a tram to your Museum.

Two pre-conditions apply. First, your Museum has to forward a copy of your Collection Policy and a letter from your local Australian Taxation Office to the TIA people in Canberra stating that you are an approved museum eligible to receive gifts in accord with sub-sections 78(4) and 78(6) of the Act. Second, there needs to be two TIA-approved valuers not associated with your Museum available to swing into action.

The average of the two valuations (both made within 90 days before or after the gift) is the amount that the gift is considered to be worth under the scheme, and after the paper-work is completed, your visitor can hand the beastie over to your museum and both parties walk away smiling.

The TIA scheme applies not only to, say, trams, but also photo collections, memorabilia (such as an old bell-punch or a destination roll) and ephemera (which is paper materials like tickets or newspaper clippings, etc.)

There are a host of fine points to attend to before you can use the scheme to attract those gems "out there". They include:

- Your collection policy
- Taxation Office eligibility
- Approved valuers
- Is it a desirable acquisition?
- The Valuation Certificate
- The Donor Form
- The Donation Summary

Your Collection Policy

Your museum will need to have in place a formal Collection Policy, which sets down what you exist for, what you have or want to have in your collection in terms of trams, tramway buses, artefacts, archives, memorabilia, or whatever. An important part of a Collection Policy to the TIA

Committee is your policy of "de-acquisition", in other words an outline of the process for determining the need for and the method of disposal of any item that may become surplus to your requirements.

As far as TIA is concerned, any item donated under the scheme must be considered as part of your permanent collection. **NOT TO BE DISPOSED OF!**

The Ballarat Tramway Museum has locked in what I consider to be an excellent Collection Policy, authored by Warren Doubleday, and which has not only been commended by Museums Australia but which meets with the approval of the TIA people in Canberra.

There is a copy of this policy, along with most of the documents I've been referring to, in the information packs I've given to each museum.

Tax Office Eligibility

I quote, "To participate in the scheme, a collecting institution must initially confirm with its local branch of the Tax Office that it is a public museum, public library or public art gallery for the purposes of sub-sections 78(4) Table 12 and 78(6) of the Act. A copy of the letter from the ATO advising eligibility status should be forwarded to the TIA Committee in Canberra."

That copy of the Tax Office letter must be accompanied by your Collection Policy. By the way, you must advise the TIA Committee down the track if you ever change your Collection Policy.

Approved Valuers

"To value a gift for the scheme, a valuer must be approved for this specific purpose by the Departmental Secretary."

A prospective valuer must submit an application form which identifies the specific kinds of property he/she is applying to value.

The nomination is signed by a Director of a major public institution (i.e., your museum) who is a specialist in the area of the valuer's expertise.

The applicant must demonstrate relevant experience and nominate two professional referees who are qualified to comment on the applicant's expertise. One of the referees must be the relevant specialist staff member (or Director) of the nominating institution.

The prospective valuer must note the Code of Conduct for valuers under the scheme and, with their application, sign a private interests assurance form. The valuers must be at arm's length from both the donor and the museum.

The TIA Committee approaches the two referees, considers all the material, makes a recommendation to the Departmental Secretary and, if the application is approved, the valuer is advised in writing and his/her name entered in the circulated list of Approved Valuers.

Approval of a valuer is for five years or as determined

Valuation fees and expenses are a matter for negotiation between the donor and the museum. An important point to note here is that the costs of a valuation are recognised by the Tax Office as tax-related expenses, and are thus a legitimate deduction. So put it on the donor to pay!

Is it a Desirable Acquisition?

Before your museum accepts the proposed gift, ensure that it fits within your acquisition (Collection) Policy and that you wish to accept it for your (permanent) collection.

You are able to refuse the proposed gift if it doesn't fit in with your policy.

Make sure that the proposed gift has no conditions attached, and that the owner has clear title to the item.

The Valuation Certificate

The valuer sets down on this Certificate his/her details, those of the donor and the recipient museum, followed by a description of the proposed gift. Other requirements for the valuer are to state the condition of the item, evidence of authenticity and history of ownership, as well as sales evidence of similar items as support for the valuation.

The Donor Form

A copy of the "Certificate of Donation" or Donor Form is in your museum's information pack. A few points of note.

It must be typed, but it can be done in a word-processor emulating the form.

The donor's clear title to the proposed gift must be declared.

The recipient institution must state that the proposed gift conforms with its Collection Policy.

The Donation Summary

Your museum must then complete a summary form that sets down the details of the donor, the proposed gift and the two valuations and the names of the approved valuers used, and the average of the two valuations.

And Also

The museum needs to make sure that all the paperwork is completed correctly and within the time limits.

Should there be a wide gap between the two valuations, your museum will need to assess this variation and provide the TIA Committee with some explanation.

Your museum will need to satisfy itself that the donor has clear title to the gift, and that it does not conflict with other legal provisions, such as the Commonwealth's Archives Act 1983 or the Copyright Act 1968.

And a little twist in the tail. The Tax Office may disallow the gift if it finds that the donor receives any advantage of a material nature as a result of the gift, such as free or discounted entry or membership fees.

In summary

The Tax Incentives for the Arts Scheme is in place to help your museum secure gifts from donors, and at the same time offering tax deductibility for the value of the gift.

It is a ritualised process that involves a moderate amount of red tape, and it IS more complicated than simply issuing a donor with a receipt for his or her cash donation in excess of \$2.

But it MAY be the avenue of obtaining the "Missing Link", or that fabulous photo collection of Joe Blow – before he passes over the bar, or that irreplaceable collection of tickets, bell punches and news clippings going back to 1920s that sets your Archives Officer drooling!!

I have applied for approval as a valuer under the scheme, and I applied to value the following class of "property": "Australian and New Zealand Trams, Railway locomotives and rolling-stock, Buses; and associated memorabilia, ephemera and models."

I was able to quote over thirty-four years experience as a property valuer, my twenty-seven years on the boards of two tramway museums, and a long period of time buying and selling tram and train models, photographs etc.

I put it to you that there surely are two interested tramway museum personalities who should seriously consider applying for approval as a valuer under the scheme. Until there is at least two more approved valuers, no museum can obtain the necessary two valuations from approved valuers outside their museums, and I cannot value a prospective gift for the Ballarat Tramway Museum.

To alter an old saying just a little bit. "It takes three to tango!"

Comments

John Radcliffe: pointed out that "Approved Valuers" to be a director of a Government Museum. Len not aware of this and will seek clarification. It was recommended that COTMA have their own approved valuers.

Summary report from Len was excellent, outlined issues and valuers to be honest. One example paintings being placed into an old people's home being valued to suit the valuer's benefit.

A valuation from a future donation (i.e. tram body) must be made before that person dies, otherwise a valuation can not proceed. Curators not accepted as valuers.

Can not donate your own works, eg build your own tram and claim as donation item to a museum for Taxation purposes. Materials, i.e. paint etc is okay.

Len will liaise with John Radcliffe re future application grants etc.

Tramcar Cleaning

Presenter: Ron White
Session Chair: Peter Hyde
Session Secretary: Morris Moller

For some twenty-five years, I made it my responsibility to organise and mostly do some of the cleaning at our tramway museum. This included display areas, street furniture, working floors as well as keeping the trams and buses clean. There was some cleaning work done by other members but I legitimately felt that I was doing most of it myself, and not keeping up with it.

Then something triggered my giving it away. Rolling stock reports in our Committee Meetings rarely, if ever, mentioned the fact that routine car cleaning had taken place, so I wondered whether the work had ever been valued.

Fortunately I found another member to take on the responsibility, and after a break from it. I now assist him to some extent. I know that he finds it a struggle to keep up with and we have discussed the formation of a team to cover the work.

The questions I pose today I hope will take a searching look at attitudes and practices in what I think is an important part of our museum operations.

I feel that well-presented, clean cars make a good impression on our visitors, and indeed, contribute to the safety of our operations. The regular cleaning of our vehicles should also contribute to their longevity which may determine the cleaning methods we use.

From my experience, I would say this requires a team of people who communicate with each other what they have done. Alternatively an effective record system could enable any person to do useful work on a casual basis.

At our museum, we have discussed having a cleaning dock but have not felt strongly enough about it to proceed. Some cleaning jobs are better done indoors whilst others may be done better outdoors.

I would hope that our deliberations today, the task of car cleaning may enjoy a higher status with adequate provision of materials and manpower support than may have existed in the past.

There will be varying answers to these questions according to the circumstances of each museum, and experience and opinions of the people involved in the discussions.

Restoration and cleanliness should be good so as to make an impression to the public.

A question sheet was handed out.

Question Sheet—Handout

Introduced Discussion — Tramcar Cleaning

A Organisation

1. Is tramcar cleaning regarded as part of the regular maintenance program?
2. What status does this work enjoy?
3. Is there a person or team who make this their responsibility?
4. Is there a special cleaning area? What are its features?
5. If not a special area, where are the cars worked on?
6. Is a planned cleaning program followed?
7. Is cleaning on an “as needs” basis good enough?
8. How fastidious do we need to be? Or, can we afford to be?
9. Are records kept? Is there any point in keeping these cleaning records?

B Methods

What methods, equipment and materials are used for the following cleaning tasks? How often are they done?

1. All-over washing of exterior.
2. Window cleaning inside and out
3. Floor cleaning—smooth and slatted, Dusting of seats.
4. Ceilings and bulkheads.

	Equipment	Methods/Materials	Frequency
All-over wash exterior			
Window cleaning			
Floors Seats			
Bulkheads Ceilings			

Comments

John Bullen: floors and windows washed after 30 trips.

Keith Stoddan: removing cobwebs, mud from floors and window washing.

Bob Marchant: has a regular cleaner on Saturdays, window cleaning is important. Praise to the member for a job well done.

Terry Verney: tram runs for six weeks, Wednesday to Saturday. Swept out and windows cleaned.

Kaye Morgan: cleaning is important. Trams cleaned every Tuesday.

Suggestion made for a universal cleaning plan.

Bill Kingsley: at Ballarat operational trams cleaned frequently, others not cleaned. The SPER: Euclywash, makes trams cleaner and smell nicer.

Jim McCrum: PTU trams washed inside and outside every day. Roofs washed every three months. Do not use ammonia cleaners because of the smell. Do not use household detergents. Malt vinegar is an excellent window cleaner.

Terry Verney: No foodstuffs allowed on board.

Don Smith: suggested a 'swirlon' brush be tried.

Peter Lumb: problem with waxing when repainting.

Morris Moller: try and stop children from standing on seats.

Is the Volunteer Model Sustainable?

Presenter: Les Stewart

Session Secretary: Keith Kings

Session illustrated with overhead projection slides.

Is the volunteer model sustainable?

Government

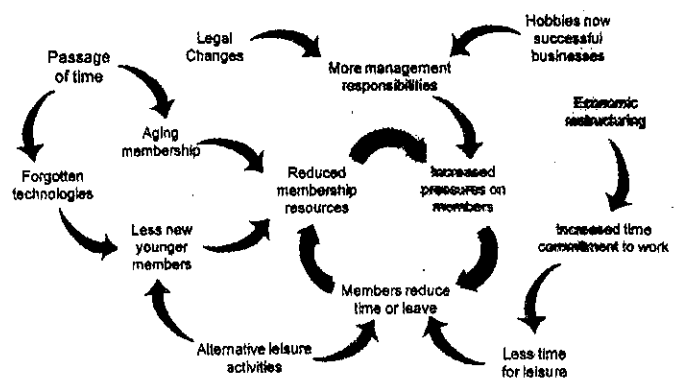
Success



Time

Social

Pressures on membership from all fronts



Richard Gilbert: agreed with the Speaker and stated that he had presented papers previously along these lines. He felt that present young people were not generally interested in doing things like those of one or two generations ago. Richard urged that we build on what we can and try to get young ones to join in and not feel they are outside a "clique".

John Radcliffe: commented that many of us were "hooked" at a relatively young age. He felt that we have now reached the "business" stage of development. We need to have Managers who are sympathetic to both employed staff and volunteers, while also looking for interest from public volunteers.

Les Stewart: gave an example of a conventional old sport recently having to adapt itself to get new members.

Peter Kahn: feared that older founding members of a society do not want to change anything, whereas “new” members have different ideas based on today’s thinking.

Bruce Dale: gave an example from overseas of a method to attract government funding.

John Radcliffe: commented on “levels” of museums from top Government down to volunteer museums—the latter is basically an Anglo-Saxon phenomenon. He asked, “How many of our museums have a Business Plan?” He urged that we should do this if we have not done so.

Lindsay Richardson: spoke re junior members. He felt that existing members “self destruct” when dealing with new/young members and inadvertently get rid of them.

Les Stewart: groups who are potential members—that is, those who have time on their hands—include those who have just left school and married partners who have just got their children off their hands.

Trevor Dennhardt: felt that youngsters today have changed to “do your own thing” types and he asked how can we redirect them.

Len Millar: enquired how we can train new volunteers to do work without “killing” their interest.

Dennis Bell: work experience students recently worked at Bendigo Depot with reasonable results.

John Radcliffe: felt that we would need an experienced adult member/employee who could give continuity of supervision.

Les Stewart: mentioned an example from Christchurch of a volunteer who helped at Ferrymead and it enabled him to get an apprenticeship.

Bryce Pender: we need to train staff in various aspects including handling tourists.

Les Stewart: summed up the discussion and how to meet the various challenges.

Richard Gilbert: suggested ways of advertising to “outsiders” to get them to become interested in our operations.

National Guidelines for Regional, Local and Specialised Museums Workshop

Presenter: John Radcliffe
Session Secretary: Lindsay Richardson

A discussion of the penultimate draft set of guidelines for the operation of Regional, Local and Specialist Museums currently being finalised by a Museums Australia committee chaired by Kylie Winkworth (draft attached). Most of the issues are so simple and fundamental that we never think about them. **We should!**

A MUSEUM is a non-profit making, permanent institution in the service of society.

It is open to the public and it acquires, conserves, researches, communicates and exhibits, for the purpose of study, education and enjoyment, the material evidence of people and their environment.

Purpose

- Why did we start?
- Why are we here now?
- Where will we be in a few years?
- Do we agree on that?
- Is it written down?
- How do we relate to the needs of our community?

Access

- Who are our audience/visitors/customers?

- How is collection available?
- How much of it is accessible?
- Do we understand our customers' needs?
- Do we restrict access?
- How do we develop and respond to new customers?

Sustainability

- Does change threaten our survival?
- Do we have plans to address threats?
- Enough support (volunteers, \$) to achieve our aims? If not, what are we doing?
- Where is best community support? Do we look after it?
- What are we sustaining?
- Do we have new ideas?

Networks

- What networks do we have?
- Who are our friends/sponsors/stakeholders?
- Belong to other kindred bodies beside COTMA?
- Talk to our customers? Do we hear them?
- Do we involve our local community?

Cultural Diversity

- Do we have partnerships with local people?
- Do we recognise other cultural, ethnic and technological interest groups?
- Do we reach out to them?
- Is material relating to other cultures and technologies appropriately displayed?

Technical Guidelines

- Collection Management
- Conservation & Storage
- Interpretation
 - Exhibitions
 - Education
 - Publication
- People Management
 - Training
 - Safe working environment
 - Insurance
 - Amicable relationships
- Marketing/Visitor Program
- Sound Governance
- Finance, Funding resources
- Research capability
- Secure, safe, comfortable facilities

Questions

1. Does your organisation meet the Museum definition?
2. Which Guideline areas should you strengthen?
(Purpose, Access, Networks, Sustainability, Cultural Diversity)
3. Which Technical areas should you strengthen?
(Collection Management, Conservation & Storage, Interpretation, People Management, Marketing/Visitors, Governance, Resources, Research, Facilities)
4. How will you tackle them?

Record of discussion on presentation of Guidelines for Regional Local and Specialist Museums

QUESTION 1: DOES YOUR ORGANISATION MEET THE MUSEUM DEFINITION?

RESPONSE:

- Group 1: Yes, but must also serve as a fun park to help pay the bills. We must meet the needs of customers, and younger customers see us as “fun”. We also walk a tightrope between conservation and restoration.
- Group 2: Yes and no. Some groups are different — eg primary role of providing transport in a recreation park (Whiteman Park, WA). Agree that we must confirm unanimity of agreement among members as to purpose of the operation.
- Group 3: Five groups represented in discussion group, all involved in tramway operation. Providing “rides” was a major component. About half of activities considered to be true “Museum” activities.
- Group 4: All groups participating considered themselves museums. It was recognised there was considerable variation in presentation, and that the groups had an obligation to interpret their collection.

It was recognised there was “cultural diversity” in the objectives of the museums as seen by the individual members, and it was essential this to be resolved.

QUESTION 2: WHICH GUIDELINE AREAS SHOULD YOU STRENGTHEN?

RESPONSE

- Group 1: *Purpose:* We all had one, often locked into it by an original constitution, in many cases not recently revisited. There may be a need for strategic review.
- Sustainability:* May need diversification of activity to attract additional revenue streams. But if do this, there is then a problem of competition for resources including capital.
- Group 2: *Access:* Attracting visitors (a) those visitors with specialised museum/tramway interests (b) other visitors initially attracted by more general attractions (eg Gold Mine, Recreation Park, Begonia gardens). Need to seek to attract/access wider range of potential visitors.)
- Also need to address physical access constraints.
- Group 3: *Purpose:* Particularly with respect to our obligations to interpret social history as well as technology.
- Access:*(a) Making available all areas of museums including workshops so public can appreciate how we do what we do. (Most workshops not able to be seen by the public -

compare with Pichi Richi Railway which conducts workshop tours in small groups as an additional revenue stream.)

(b) Physical access for the handicapped.

Group 4: *Sustainability*: The need to work on attracting sponsorship. Recognise we are in competition for the leisure dollar (eg impact of Sunday trading).

Networking: Locally, with other organisations. More effective sharing of resources among museums.

Conclusion: Recognise the need for strategic planning, taking into account purpose and the need to address competition.

QUESTION 3: WHICH TECHNICAL AREAS SHOULD YOU STRENGTHEN?

RESPONSE:

Group 1: *Marketing and Visitation*: The Economic lifeblood of operation

People Management: (a) Members (b) the public (c) the need to attract new people resources

Group 2: *Marketing and Visitors*: - Compare with effectiveness of Puffing Billy - Should we develop better relations with tour bus companies? - Recognise we are in a competitive environment.

Group 3: Need to be better salesmen of what we do - become more customer oriented. Train the staff Recognise there will be a variety of different messages given to the public where there is a variety of perceptions as to the museum's purpose.

Group 4: *Good Management/Governance*: Need a vision statement of where the museum will be, say, in 2020.

Better Marketing:

QUESTION 4: HOW WILL YOU TACKLE THEM?

RESPONSE:

Group 1: Need for business planning - eg SWOT analyses. Need to agree on actions. Must ultimately aim to have at least one/some paid staff, even if only part time, to provide week-long continuity of operation.

(Groups 2, 3, 4 did not have time to separately address this question.)

OVERALL CONCLUSIONS:

- It now seems to be time to review the strategic purpose of each museum after maybe 30 years operation, and have that agreed purpose accepted/owned by its members.
- Recognise in reviewing the strategies purpose and plan that we must be "customer oriented", as we are competing with many other alternative leisure opportunities. We must continue to attract visitors to maintain our economic lifeblood.
- Are we adequately addressing the need for "continuity of operation" into the longer term future.
- Should we be aiming for a component of paid staff?

NATIONAL GUIDELINES PROJECT (DRAFT)

Introduction

Museums are almost as diverse as the collections they contain, and this can make it hard to define how they should operate and what are the minimum standards. But it is important for all museums to review their performance to ensure they are working effectively and fulfilling their purpose. This document is designed to help museums take stock of their current situation and set clear directions for the future.

The comments and questions are framed around a number of headings. Not every question will be relevant to every museum. But we hope they will help you review your museum and assess how it is working. Some questions are wide ranging and should stimulate discussion and encourage you to explore new ideas and opportunities.

There are two main parts to the guidelines:

- a series of comments and questions framed to help museums explore their direction and plans for the future (a sort of strategic plan)
- and a set of 'technical' guidelines which set out minimum standards and which are for self evaluation by the museum

The questions and guidelines compile into a summary of the core responsibilities of museums. Meeting these standards is a way of affirming our belief in museums and their value. The range of questions in these guidelines shows the tremendous responsibilities and expectations of museums. We recognise that funding and resources for museums have not kept pace with these ever enlarging obligations. So it is important not to see these questions as a pass or fail test. We hope they will help museums to recognise their achievements, to review their work and set new directions for the future.

Planning and Governance

Like any organisation a museum needs a clear sense of purpose, and a formally organised structure. Most museums also have a properly elected or appointed committee to advise on policies and plan for the future. This involves understanding the museum and its resources and thinking broadly about issues and opportunities. A formally structured organisation and committee maintains public confidence and helps to ensure the museum fulfils the trust that donors and others place in it.

- Do you meet regularly to review your museum's work?
- How are you accountable to the public and your community?
- Are you planning for the future of the museum and its collections?

Purpose

(isn't this planning and should it be merged with the above?)

All organisations need to know where they have come from and where they are going. Setting out your purpose and goals helps you to make consistent decisions and achieve your aims. And as people come and go in museums, having a written and agreed statement of purpose helps you to maintain a sense of teamwork.

- Why was your collection or museum established?
- Do you know where you are going over the next 3 - 5 years?
- What are your plans for next few years?

Access

(or is this really about visitors?)

All museums are about relationships with people. Museums need to understand the communities they serve. This can start with a simple conversation. Access is about how people use your museum and collections and how you relate to your users. This may include people who visit the museum,

schools or researchers. It is up to you to define your audience and set a practical level of activities in your museum.

- Who is your intended audience, visitors, customers?
- How do you make your collection available?
- What are the needs of your visitors and other users?
- How do you develop and respond to new audiences?

Friends and Networks

Museums and collections don't work in isolation, they are part of their communities. Museums need friends, networks and partners, to keep in touch and to survive. Partners can be as diverse as your community, and can include other museums or almost any group or organisation. All partnerships are two-way relationships that need to be nurtured. Making people feel welcome is a good start.

- How do you involve local communities and groups in the museum?
- Are you a member of other professional, cultural or community organisations?
- Do you have enough support (volunteers, funds etc) to achieve your aims?
- What are the opportunities to involve- community organisations and other groups in your museum?
- Where are your best potential sources of support in the community? Do you look after them?

Managing Change

Change is inevitable, but to be positive it needs to be managed. As permanent institutions museums have a particular responsibility to plan for the future. Involving new people in the museum is one way to refresh and reinvigorate your work.

Museums need to operate in a way that is sustainable. This means tailoring what you do to match your resources, knowing your limits and identifying opportunities.

- Are you facing changes that will affect your museum?
- If yes, do you have plans to manage these changes?
- Are you exploring new ideas and projects?
- Are they realistic given your resources?

Cultural Diversity

Museums respect the diversity of cultures in our society and recognise multiple ways of understanding the world. Museums are sensitive to the culture and experiences of all their potential visitors.

Australia is a country of great cultural and ethnic diversity and museums have a responsibility to reflect that diversity in all their operations. Museums represent cultures and cultural perspectives through their displays and collections. It is important that relevant cultural and ethnic groups are consulted about the collections and displays that represent them.

- Does your museum include material belonging to other cultures and is it appropriately displayed?
- If your museum includes material relating to Aboriginal and Torres Strait Islanders, have you made contact with local indigenous people? Have they had an opportunity to comment on, and shape the display?
- Have you considered opportunities to communicate with and involve other cultural and ethnic groups in your community?
- Has your museum considered opportunities to further reconciliation between Aboriginal and non Aboriginal Australians?

Technical Guidelines

These simple questions and explanations are framed as a prompt, to help you review how your museum is working. They are minimum standards, but not every question will be relevant to the circumstances of every museum. Please remember there is no pass or fail, just an opportunity to improve the museum's work and its service to the community and to recognise your achievements.

1 Planning and Governance

(could delete if you think this is dealt with adequately in the first section)

Do you have a formally organised committee?

So that the collections and individuals are protected

Do you have a clear statement of purpose for the museum? (aims, objectives, mission)

So that all the museum's work and programs are guided towards this purpose, and so that you know what you are doing and why

Do you have specific goals or a program for the next few years?

So that the museum's work is focused and agreed on in advance

Are you incorporated?

So that the collections are protected

Do you make the main facts and policies of your museum accessible to the public?

So that the museum is operated fairly and accountably

Do you produce a report on the activities at the museum, such as an annual report?

So you can review your achievements, and so that the museum's work can be analysed

2 Collection Management

Do you have a written acquisition policy on what to collect?

So that you know when to say yes or no to an offer

Have a working system for documenting your collection?

So that you know what you have and where it is

Do your records include the following:

Objects with numbers?

So you can match the objects with the information in your catalogue

A clear brief description or photo?

So that you can identify the object if it goes missing, is damaged or the number is lost or removed

A record of the history of the object? (eg who used it, where it is from, how it was made)

So that its history and ownership survives when those who collected it are no longer working at the museum

A record of who donated the object, or how it was acquired?

So you can answer inquiries and show how you obtained the object

Do you have legal title to the objects in your collection?

So that any disputes about the ownership of the collection can be readily settled

Ensure that loans are properly documented and made in accordance with a clear policy?

So that you know who owns what, and when to return loans

Have a disaster preparedness plan?

So that you can enlist the help of others if the collections are threatened in an emergency

Does your rate of collecting objects match your resources to document and safely store them?

So that you fulfil your obligations to the collection and the donors

Do you ensure the collection is securely stored and displayed?

Conduct stocktakes of the collection?

Have clear policies for the deaccessing of objects?

3 Conservation and Storage

Do you emphasise good housekeeping?

Have a clean, stable storage area?

Regularly clean your display cases and exhibition areas?

Regularly inspect your collection, both in storage and on display?

Do you control natural light in the museum?

Do you change organic items on display? (eg costume, textiles, paper, photos and watercolours)

Do you copy photographs you wish to have on long-term display?

Do you control humidity in the display and storage areas?

Do you know which objects are in most urgent need of conservation?

Do you only restore objects after proper assessment by a conservator and under their guidance?

Do you ensure that any conservation or restoration is fully documented?

Do you ensure that objects are safely displayed? i.e. with no pins, staples, or sticky tape etc

4 Interpretation

4.1 Exhibitions

Do you ensure that your displays are well organised?

Are your labels readable?

Do you correct any mistakes that are pointed out in your labels and displays?

So that the risks of theft or damage to the collection are minimised

So you know the condition of the collection and if anything has been stolen

So that you can carefully cull unwanted objects

(Good Housekeeping)

So that the collection survives in the best possible condition

So that objects are stored safely in the best possible conditions

So that damage is minimised and the collections are well displayed

So that you prevent deterioration and promptly fix any problems such as damp and pests

So that objects do not fade or become brittle

So that damage from light is minimised

So that copies are displayed and the original photos are preserved in storage

So that opportunities for mould and insect attack are minimised

So that time and resources are not wasted on unnecessary work

So that objects are not damaged by alteration of the original fabric and inappropriate treatments

So that the work you have done is recorded and changes to the fabric are easily identified

So that objects are not damaged while on display

Explaining Your Collection and Communication With Visitors

So that visitors can understand what you are trying to communicate

So that visitors do not strain their eyes

So that the museum demonstrates a concern for accuracy and is responsive to public comment

Do you monitor comments from visitors?

So that you can respond to their suggestions and address any matters they bring to your attention

Do you change parts of your exhibitions?

So that there are fresh displays and new ideas to keep visitors coming back to the museum

4.2 Education

Do you provide special access to your collection for various interest groups? (i.e. tours, access to storage, detailed study of collections)

So that the collection fulfils its educational potential and the museum serves its community

Do you provide education programs for schools or other groups in the community?

So that people can learn from the collections

Do you ensure that your programs are planned for the needs of your visitors?

So that they are relevant, appropriate and enjoyable

4.3 Publications

Do you publish information about your collection and related subjects?

So that the public benefits from the collection and access is increased

5 People Management

Do you train new volunteers and staff at the museum?

So that they can work safely and effectively and so that they understand what your museum is about

Do you have insurance for people working at the museum?

So that both parties are covered in case of an accident

Do you ensure the museum is a safe working environment?

So that accidents are prevented

Do you have ready access to publications or other references on museum management?

So that any questions can be answered promptly and you are able to respond quickly to problems

Do the people working at your museum keep up to date with current debates by reading, attending seminars and conferences and thinking about museums?

So that you are able to contribute to debates and bring new ideas to your museum work

Do the people working at the museum have access to further training? (from seminars and workshops to university courses)

So that they can improve their skills and service to the community and so that their work is more satisfying

6 Promoting Your Museum

Do you make visitors feel welcome?

So that they want to return

Do you advertise your opening hours? (in tourist brochures or the local paper)

So that visitors know if you are open before they turn up at the door

Do you ensure that your museum is open regularly at the advertised hours?

So that access by visitors is guaranteed at the time stated

Do you know who your visitors are?

So that your displays and other programs are addressed to the interests and needs

Do you keep a record of your visitor numbers?

So you keep track of visiting patterns and can demonstrate public support

7 Finance, Funding and Resources

Do you produce a budget and keep a record of your income and expenditure?

So that the museum operates within its means

Do you have your accounts checked by a qualified person?

So that you can demonstrate that the museum is operating honestly and responsibly

Do you operate as a non-profit organisation?

So that you meet the primary aims of the museum

8 Research

Do you respond to inquiries from the public?

So that the knowledge built through the museum is shared

Do you undertake research on your collection and its themes?

So that your exhibitions and other programs are improved, and so that public appreciation is enhanced

Do you give researchers access to your collection?

So that the collections are used for the public benefit of society

Where possible, do you assist users of your collection?

So that your collections are genuinely accessible

10 Facilities

Do you meet appropriate regulations for fire, marked exits etc?

So that people are safe in the museum

Do you keep the buildings and grounds in good repair?

So that the collections are protected and the risks of an accident are minimised

Do you carry public risk insurance?

So that you are covered in the event of an accident

Do you look after the comfort of your visitors? (clean toilets, somewhere to sit, refreshments)

So that they feel welcome and enjoy their visit

Have you sought advice about disabled access?

So that the museum is accessible to everyone

Kylie Winkworth

August 1996

Car Parking at Museums

Presenter: Bill Kingsley
Session Secretary: Stewart Keenan

Most visitors come by car.

Your car park is therefore a top marketing tool, yet it is so often the least considered aspect of many museum operations.

Your car park **MUST**:

1. **PROVIDE A WELCOME.** "Hey! This looks as if it might be OK."
2. **SET THE ATMOSPHERE.** "Hey! This feels great."
3. **PROVIDE SHELTER FROM SUN and RAIN.** "Let's park under this tree."
4. **SUGGEST SECURITY.** "Yes, the car looks safe over there."
5. **BE WELL DRAINED.** "We certainly won't get bogged."
6. **HAVE TOILETS HANDY.** "Yes kids. There it is!"
7. and after the visit
8. **A NOSTALGIC VIEW OF THE MUSEUM.** "That really was great. Hard to leave isn't it. We'll be back."

Where to put the car park?

INSIDE YOUR MUSEUM

Provide a spectacular entrance – under an archway
– over a bridge

Feel "amongst it" on arrival

BBQs and playgrounds near cars

Car park and toilets are better monitored

But avoid – front of depot

- people movement areas
- photographic vista areas

The nicely tree lined car park at St. Kilda (AETM) is an excellent example and oozes relaxation and friendliness.

That at Bylands (TMSV) has a great view.

Both are right near the trams.

OUTSIDE YOUR MUSEUM

Shade is essential

Car park and toilets are unsupervised

Clear walkways and paths must be provided

Keep walking distance to a minimum

You can enter/exit through a ticket office/souvenir kiosk

Glenorchy (TTMS) is a neat example

Toilets can be in here

Advantage of souvenir sales on departure (and donation box)

Branford, Connecticut is an outstanding example
Or wander in, look around, pay on tram

NO CAR PARK

Route services like PETS, BTM, MOTAT.
Puffing Billy has no real passenger car parks!

CAR PARK SURFACE

Asphalt is formal
Grade 1 in 36 to 1 in 48 for drainage
Can paint bays
Gravel is informal
Grade depends on surface absorptivity
Concrete is harsh and unfriendly
Avoid "bird baths"

CAR PARK DRAINAGE

Peripheral open carrier drains
Valley drains with top entry pits
Grated drains
Kerb, channel and side entry pits
No drains (like Maldon CHTR)

CAR PARK DESIGN

Formal – please park in bays
If formal, try to have vehicles face museum – this is the "Sad to be leaving, let's come again" technique
Vehicles facing away from museum encourage the "Let's get home quickly" syndrome
Informal – tends to induce a feeling of relaxation
Whichever – use trees, planter boxes, etc
And a neat, modest, welcome sign

BUS & COACH BAYS

Must be immediately adjacent to, but not visually obscuring, the museum entrance
Nose in angle parking – facing the museum
NEVER walk bus passengers through the car park

FAREWELL SIGN

Such as
"Thanks for coming. We have appreciated your visit to us. All our staff are volunteers.
We would all like to see you back with us again – soon. If you enjoyed our museum then
please tell your friends about us."

Questions/Comments

Les Withington: car parks compete with football/swimming.
John Radcliffe: somebody else's park? Can you find a park?
Peter Kahn/Bruce Worthington: small park at SPER – always full.

Ron White: on quiet days fill park with members' cars.

Rod Atkins: car park closed for winter replacing 20-year old car park, but it currently faces Museum.

John Radcliffe: most car parks have two rows – one facing one not.

Bill Kingsley: use logs in dirt areas – lines on asphalt, coach companies have coach facing restaurants, etc.

Les Stewart: museum doesn't supply car park as car parks are low priority – non revenue. Money spent on trams, etc. instead.

David Neish: car park loses customers.

Bill Kingsley: first time at SPER he used train (old site).

Bruce Worthington: mode of transport used by visitors – $\frac{1}{3}$ train, $\frac{2}{3}$ car?

Ron White: STA bus service and Museum buses were tried for Salisbury station but proved unsatisfactory. When public transport mooted, most people (99.5%) use car for leisure.

Bill Kingsley: Ferny Grove plan to extend tram towards station.

Is car park near gates?

WTM car park across creek – families roll up – parents sit in car and send kids on tram ride

Peter Kahn: official car park is at Sutherland but nobody uses it because it's isolated, shielded from highway (theft, etc); people prefer to park at the site.

Bryce Pender: how many museums can expand?

Ron White: St. Kilda planned a large car park together with a coach park.

Bryce Pender: notes coaches in Wellington have hard time (a) parking and (b) turning.

St. Kilda: car park secure, comfortable.

Bylands – on a good day – view of museum and valley.

Bill Kingsley: felt the one at Disneyland was an example of a bad type of car park whilst one of our best attractions – Puffing Billy had no car park; relied on the community one close by.

John Radcliffe: conflict in traffic design? Cyclical plan? Regimented or Casual traffic plan?

Terry Verney: PETS visitors come across a DO NOT ENTER service road sign need.

Ron White: sign points to entrance.

SPER has overhead poles, crossing signs.

MOTAT – big problem is car park.

AETM has paved path to entrance door from near car park – greening policy has hidden museum. Hides undesirable aspects, but also desirable therefore good signage important.

Royal visits help. Signage (AKA McDonalds) 5 km before town type of thing

John Radcliffe: maximum space for minimum expenditure

Keeping the Rails Cleaned and Lubricated

Presenter: Dennis Bell
Session Chair: Bruce Dale
Session Secretary: Bill Cox

Dennis Bell introduced his topic by stressing the need to keep rails clean, especially where street operations were involved. Debris falls from motor vehicles in the form of oil, nuts and bolts etc., also sand and silt. A variety of method can be used to clear the rails—blowers not popular with other users of the streets while vacuum has only limited success. Bendigo Council has co-operated with provision of their street sweeper but perhaps not as often as preferred.

After cleaning, keep rails lubricated on curves which reduces wear and squeal—the latter vital in residential areas. At Bendigo, that is done twice weekly, with an adapted oilcan and gear. Safety factor for the employee doing the oiling, plus a risk factor to the public by slipping on the oil—a fall could bring a claim for injury.

Len Miller: noted the objection by NPA(?) at the effect of oil on concrete roads; can activate “slip mode” on some of the modern trams in Melbourne.

Phil Bertram: noted that currently graphite is seldom used.

John Shanks: added that they use graphite grease.

Richard Gilbert: said that most museum trams operate on private track.

David White: said they had no problems.

Len Miller: added they now get their supplies of lubricant from the PTC which lasts and works well, similar to that used by railways.

Warren Doubleday: said railways also use lubricants but stressed must be on rail side and not rail top. The W4 used in Melbourne had had its flange extended which caused some problems upon its return until “worn in” on track. Use of flange lubricant on trams themselves would be too expensive to contemplate in Melbourne. Wet weather eases the problem; dry compounds it.

John Phillips: said that mixed operations in street and parks can make life difficult but leaves also cause major problems with trams “skating” on the scum residue.

Jim McCrum: noted that plane trees in Melbourne are not a major problem compared to the native trees which dump leaves or needles all year round. There is a need to keep pressure on local bodies to keep the streets clear.

Scott Parker: noted they had a gum tree in the mall set-up which caused problems.

Philip Archer: stated that leaves had caused a derailment and impacted onto brake blocks.

David White: added that grass (and grass clippings) on the track can cause problems.

Philip Bertram: noted that use of appropriate equipment in track cleaning was important which drew a response from another member that it was a daily routine.

Richard Gilbert: said that ballasted track needs special care and on curves with road “trash” being hazardous, also pine cones!

A question was asked regarding how the new street tramway in Christchurch coped? John Shanks saying it was a commercial operation and was left to its own devices but if any assistance was called for it was at cost to operators.

Dennis Bell concluded by noting the provision of an oil pad at the entrance to their depot.

Dennis was thanked for his address.

Closed 12.35 p.m.

Collections Are We Losing Them

Presenter: Richard Gilbert

Session Secretary: Les Withington

My presentation is on a subject that I feel needs addressing. It needs to be discussed, thought out and hopefully a result can be achieved. In talking about collections I am talking primarily about film and slide collections.

I wish to put forward my views of the danger of losing collections and the importance that collections be accessible.

A lot of us in this tramway following now have our own film collections going back some 30 years, and in some cases further. What do we currently do with it? Why did we take it? How do we store it? Is it something absolutely personal to us in our private life? How often do we resource it?

Interesting questions to ponder on.

When I say some of us have collections going back 30 years, I also point out and we all know that a number of people who have these ageing collections are themselves ageing, and sadly in some cases have of recent times passed on. **WHAT HAPPENED TO THEIR COLLECTION?**

If we are to have a view of going forward with ideas on preservation of the collection, we have to be able to jump the biggest hurdle by asking ourselves the biggest question — Do I want to pass on my collection?

If we can address that in the positive, and I hope for the onward preservation of the nation's history, we can, I then pose the suggestion of how do we do it.

There are the formal museums that willingly take collections. These collections are safe, so safe it is almost impossible to resource them in any easy manner.

At this point I want to relay an experience I had in the PTC that can be paralleled in the overall intention of this paper.

I was a member of the working party set up by government direction when the Public Transport Corporation was looking at the future of the railway and tramway film and negative collection. The PTC management had taken the easy way out, in cost cutting, by deciding the collection was too costly to maintain and in their quick fix mentality of the time saw the State Library of Victoria contacted to take the lot.

There was an uproar from the unions, these people who most times seem to get bad press, but on the other hand these dedicated people who really work on the job and save much of our national estate such as the Regent Theatre or the Rialto buildings to the eventual accolades of the Press, and in this case the unions had to show their hand. From being on this working party I gained a good insight into the security, maintenance and access of film collections in the State Library hands. Some years ago the Victorian Railways publicity branch negatives ended up in the collection of the State Library. Whilst not for one minute doubting the integrity and good intention of the library in making copies of photographs available, there is a bureaucracy and formality involved in gaining access to the collection.

One has only to compare access and viewing of the collection, still at the PTC to that at the State Library to see the advantage of keeping a collection formal, but local. Obviously the combined transport unions working party submission was accepted by the Minister, the collection saved and

re-vitalised by people who understood it and of course the career-seeking manager moved on to another government department and project.

What are the alternatives for our personal collections? We can keep the collection at home. Well that's fine, while we are alive, but lets look further ahead than that. I feel a responsible alternative is the setting up of a group in the form of a Trust or Management Body to collect, administer, maintain and provide access to donated film collections.

As a starting point we have, in Victoria, the archival collection of the Australian Railway Historical Society. Some of this material has been collected directly by the society and a sizeable amount has been donated from private collections, both by persons still alive, who wished to see it preserved and accessible to researchers, and of course some was presented by the estate of deceased persons. The collection is housed at rooms rented at Windsor Station.

I recently spent an evening there on the Tuesday archives night, and was interested to see a few members of the Society come along to do research but more interestingly two people from the wider community had booked in to come along to research for projects they were undertaking.

The Ballarat Tramway Museum has two resource areas that we can look at in this paper.

We have had for some 20 years a 'library' at our member's house at Bungaree which has developed into a collection of railway timetables and related publications. This collection has been a valuable resource for tour notes for a number of railway tours and particularly for the production of the quarterly magazine the *Australian Railway Enthusiast*. The comparison here is that the collection is known about and easily researched by the Association of Railway Enthusiasts.

At the tram depot we have of more recent times established our formal archives collection and, for example, the Wal Jack slides have been easily accessed for our post conference slide show. Most importantly, the collection has been placed by the estate of Wal Jack into our archive and is, as a result, available to us all.

Our interest in photographing the tramway scene for some 30 years has not only recorded the tramway scenes of the past but has added greatly to the recording, on film, the social history of the nation. The National Film and Sound archive have lately been very keen to receive collections of amateur 8mm film stock because it records directly the social lifestyles of the families in the subject of the film and as importantly, the surrounding scenery in the shot. But above all, we have recorded our scenes for our direct interest and we need easy, affordable and informal access to these collections.

There are many Trusts, or other bodies that directly administer the estates of persons for an infinite number of reasons. Some give grants, some take into care real estate properties whilst others take into care significant items such as musical instruments, art collections, motor car collections. Those having actual physical items in their care usually allow inspection of them and the use of them for research.

In theory, a Trust could be set up with the election of a Board representing the tramway/railway fraternity and it could gain some funding by grants from government arts areas and private Trusts because of the significance of the visual history in the collection. There could be a secure area obtained reasonably easily, for instance a tramway museum may allow an area to be constructed on site or, in the Melbourne area, a railway station building can be rented. With the development of automatic ticketing there will be some quite secure brick station buildings available for rent.

The Trust could earn funds from access fees to the collection and the promotion of the availability of its use would have an upward spiralling effect. The promotion of the Trust would bring awareness to families disposing of estates and this would see collections saved. We have all been aware of photographic collections being disposed of through ignorance of the surviving family in locating any suitable repository.

The success of setting up and building on the collection would be dependant on the professionalism of the management team and the ability of potential donors to realise the asset they have, and their wider interest in the importance of the collection and their understanding of the reason they took it all, that now turning out to be the recording and dissemination of a rich historical resource.

One important thing to remember about film collections, or any other museum collection, is where possible keep it as a living collection. That is there should be no cut off point in the timeline. The collection should be continually added to as history goes on and this creates an active interest in it and adds to its importance for research in trying to market it. Some researchers may want a photograph of a tram taken quite recently and the more the collection can be used the more business it generates. A way to gain potential donors to the Trust would be to promote secure storage of the donors collection and convince him of the ease of access to the point that with the burgeoning film collections most of us have, it may be palatable to store in the archives the non directly used portion of our personal collection. The donor would have the rights of access and even the rights of removal from the collection, similarly to a public library, for some use outside the archive area. The Trust repository could be considered an offline holding store for his collection and as such may tempt people to donate and even further use the Trust. Similarly with the example of the production of the magazine the *Australian Railway Enthusiast* it would provide an excellent resource for *Trolley Wire* magazine.

The spirit of the intention is to see some arrangement set up to securely store, and offer for research, publication and general benefit to the community requiring it, the asset of our personal film collections. These collections in total represent an extremely valuable record of the tramway/railway history along with an equally important visual and social record of the nation.

I feel the time is right to push ahead with a project of this style.

Question/Comments

Film/slide collections – danger of losing – storage, accessible, preserve.

Reason for taking film/slide – are we prepared to pass on collection.

How/where?

Archive/record trust – overcome bureaucracy/cost – state, federal institution.

Committee to administer – guidelines (compliance, maintenance).

Greater integration with kindred societies.

Les Stewart: excellent idea. Archives/management of records (NZRLS).

John Radcliffe: Reservations. Two tiers – archival repository v working collection.

Photos – copyright – taxation incentive for the arts – digitisation (expensive).

Temperature control, security (fire, theft).

What are you preserving eg Windsor station/Bungaree.

Ascertain demand – location – may suggest centralised aggregation.

Curator – avoid extensive inquiries, continuity.

Personal domestic storage may not be anymore secure than say Windsor station.

John Philips: No 2 Goods shed, Melbourne – National Rail Museum?

Ancient glass slides not appreciated by non-enthusiast.

Ron White: Personal collections – persuasion to ensure they end up in the ‘right’ hands – no bullying?

Peter Hyde: Scanners (digitisation) expensive. Ever changing technology – out dates current data storage methods/procedures – compatibility.

Richard’s summary: Localising collection. Catalogue kits. Arts grants. Acid free envelopes. Archive/storage boxes. Professional advice.

John Shaw: Call to ensure that the concept is followed up and developed before the next conference.

Documenting Electrical Operations

Presenter: Craig Tooke
Session Secretary: Phil Bertram

Introduction

Paper work don't you just love it?

It seems as we progress towards the twenty first century and the supposed paper less society we are more and more becoming reliant on paper work.

In our museum operations we tend to document certain areas of our operation in the day-to-day running of our museums very well.

Such an example is traffic operations where we have a running journal showing passenger and ticket numbers completed after each journey recorded on.

As museums we must increasingly become aware that other areas of our operations must in the future be documented in far greater detail than perhaps we have tended to do in the past.

This paper will examine the area of museum electrical operations and some of the documentation that should be routinely completed and kept.

Why Document Electrical Operations?

We now live in the era of quality assurance and accreditation whether we wish to or not this has become a fact of life.

All organisations whether they are large or small are being increasingly called upon by Government legislation to ensure that quality systems are in place and used for all facets of the organisations operations.

Currently the Public Transport Corporation is going through this very process of documenting it's procedures and by experience I must say that it is not all that easy to sit down and say well we have been doing the task for seventy years now but how do we do it and documenting the procedures that we use.

All museums will be eventually responsible under rail safety accreditation legislation to ensure that adequate systems of documentation and quality assurance are in place for all facets of our operations.

Quality assurance is about ensuring that expected outcomes are achieved in the safest and most efficient manner.

Electrical operations form a vital part of a tramway museums operation and as such there is a great and important need to ensure that correct documentation occurs.

What Needs To Be Documented?

Care needs to be taken in the extent to which documentation of electrical operations is carried out.

If taken to the ridiculous extremes it can be documentation can be time consuming and of little benefit in quality assurance and safety enhancement.

By and large documents used in electrical operations tend to fall into one of two categories;

- Reference documents
- Reports
- As tramway museums we I believe that we should ensure as a minimum that we fully document the following aspects of electrical operations;
- Electrical switching operations

- Damage to overhead and subsequent repair information
- Maintenance or repair work to substation plant
- Electrical switching procedures
- Electrical system configuration
- Routine test results and inspection information

How Should the Documentation be Presented?

There are no hard and fast rules in place that can be applied to the preparation and recording of electrical system documentation, however there are a few important guidelines that should be observed when preparing documentation:

- The documentation should be written in a clear and precise manner, using plain English
- It must be able to be identified by a unique form of identification
- It should be prepared in a controlled manner and distributed in a controlled manner
- It should be capable of being audited if necessary
- It should comply with any statutory requirements that may be applicable
- It must be in a form authorised by the museum board or responsible officer
- It should always be signed and dated
- It should be as simple and as uncomplicated as possible

As I have mentioned earlier in the paper electrical operations documentation need not be necessarily complex, time consuming or complicated.

At Haddon we use a simple log book contained inside the substation located in a pocket on the door to record all electrical switching operations.

This log book provides an accurate record of all work that is undertaken on the museum electrical system and it also provides a means by which special instructions can be issued to members responsible and authorised to carry out electrical operations by the responsible officer of the museum.

I refer and commend to you all the COTMA Electrical Safety Rules which provide a further suggested guide to some of the requirements that each museum should have in place in the area of electrical operations.

Typical examples of documentation used in electrical operations by the Public Transport Corporation are contained on the following pages as a guide to the sort of documentation that is used.

We will now pause and examine some of this documentation.

It should be noted that there are variations on these documents used by other organisations however they are largely similar right throughout the power supply and distribution industry.

Storage of Documentation

It is essential that electrical operations documentation be stored in a safe and secure manner protected from the elements and capable of being easily obtained by those who require access to them.

As with the preparation of documentation there are no set methods or rules for storing documentation, each museum should come up with a system that meets their needs.

All documentation particularly that which pertains to electrical switching operations should be kept for the minimum five year statutory period.

Accurate records should be kept detailing the location of any documentation relating to electrical operations.

Security of storage is essential to ensure that electrical operations records are available as and when required.

It is also suggested that multiple copies of essential documentation be kept at more than one location to protect against accidental loss.

Training

Once a system of documentation has been put into effect it is essential to ensure those who will be using and in deed providing the information are well versed in the procedures to be followed when using and completing documentation.

A system of documentation will only prove of value if the information contained within it can be readily and accurately accessed as and when required.

This process may invoke the development of procedures and instruction relating to how the documentation is to be used, stored and added to.

Care must be taken to ensure all who are required to utilise the system are aware of how it operates.

Conclusion

With this presentation I have attempted to illustrate some of the broad principles behind the requirements for documenting electrical operations and just how this practise is carried out in industry.

Rail safety accreditation legislation is fast becoming a reality and as such as museums we must become more and more professional in all aspects of our operations including documenting what we do and how we do it.

Electrical operations documentation has tended in the past to be an area which only a few people at each museum were interested in or were pro-active in seeing being carried out.

It is of vital concern that we all become far more pro-active in this area and in deed in the documentation of all our operations to ensure we comply with the complexity and reality of modern legislation such as rail safety accreditation.

I wish to suggest that this perhaps could be an area in which COTMA as an organisation could perhaps play an active role in.

It would be of value if we all had the one set of electrical operations documentation or at least documentation that was very similar in layout and content.

Similar rail safety legislation will be shortly in place in most states of Australia and in New Zealand.

Why not pool our resources and collectively come up with systems that work for our type museum?

I wish to close by asking you all to review my comments and I invite further discussion on this matter either now or during the conference.

Questions/Comments

Q: Permits for overhead work — are different permits required for live and dead sections of overhead? Yes

Q: What do the various museums do for electrical procedures?

Barry Ollerenshaw: Wellington has a "Power Book" as current record of Electrical work to ensure workers are aware of System Status. A supervisor is responsible for overseeing operations.

S Parker: At PETS Power Switches are key locked and logged by persons performing work.

Q: Do you keep records? No written records are kept of work being performed

John Bullen: Bendigo — no registered electrical contractor is employed to take responsibility for work until such terms they are reluctant to sign any documentation until someone is available. Staff are confident but not officially authorised

W Doubleday: BTM has had problems coordinating electrical works with the SEC to ensure safety checks have been followed.

Q: How far have museums gone with their reference documentation?

WTM Barry Ollerenshaw: have issued power procedure documents. Staff are trained and cannot operate without this training. Further documentation is under preparation.

BTM Bill Kingsley: — no records are taken of power switching, are on/off records required? Yes, records of this activity are recommended for all museums. Some form of pre-testing of the system prior to power on is also highly recommended.

Jim McCrum: Is labelling of all switching required? Yes, highly recommended, and is becoming mandatory.

Barry Ollerenshaw, under OH&S (NZ), when a risk is identified you are compelled to do something about it.

Craig Tooke: Documentation of day-to-day operations is recommended for your operations and activities.

John Bullen: Experience from industry has proven that we must test and record equipment testing.

**CARLTON ELECTRICAL CONTROL
TRAM ELECTRICAL SYSTEM
ISOLATION PROGRAM**

I.P.0079

Page 1 of 1

Continued on Log(s) _____

Date: 16 / 8 / 96 Day: FRIDAY

From SATURDAY (day) the 17 / 8 / 96 at 00:30 Hrs to SATURDAY (day) the 17 / 8 / 96 at 04:00 Hrs

The isolation of D1, D2 & D3 FEEDER CABLES is required

From pole 7A WHITEHORSE RD

To pole SUB D

For: INSTALLATION OF CABLES INSIDE SUB D FOR NEW TOL UNIT

Contact name: MARIO CACHIA of TRAM SUBSTATIONS

Contact No: 0414511511

Last tram : Hrs First tram : Hrs Depoll(s)

Isolation to be carried out by: F'MAN CACHIA & SUBSTATION STAFF

Commenced at: 23:59 Hrs Completed at: 00:30 Hrs

Restoration by: F'MAN CACHIA & SUBSTATION STAFF

Commenced at: 03:40 Hrs Completed at: 04:13 Hrs

Application No: 163 Permit type ACCESS Permit No: 71

issued at: 00:52 Hrs Date: 17 / 8 / 96

Issued to:

Permits on Issue: ACCESS

Permit No(s): 71

Recovered at : Hrs Date: / /

Hold Card No NOT REQUIRED

Attached by:

At : Hrs Date: / /

Removed by:

At : Hrs Date: / /

Power off Notification given by: (NOT NECESSARY) Time : Hrs Date: / /

Time

ISOLATION

1 RG AFTERNOON SHIFT TO JUMPER THE SK'S P81 COTHAM RD

2 ISOLATE SUB D AUX PANEL ON #108, #189A & SWITCH #189B DOWN ONTO THE AUX BUS

3 OPEN D1, D2 & D3 FEEDER PANELS ON #108, #189A & CHECK FOR INCOMING VOLTAGE

4 BREAK THE BULTED CONNECTIONS IN D1, D2 & D3 FEEDER CABLES P7A WHITEHORSE RD

5 CHECK FOR ZERO INCOMING VOLTAGE ON D1, D2 & D3 FEEDER PANELS

6 SWITCH #189B D1, D2 & D3 FEEDER PANELS DOWN ONTO THE AUX BUS

7 TEST SUB D AUX BUS DEAD & ATTACH A SHORT CIRCUIT TO #189B D1 FEEDER PANEL

8 ISOLATE "A" & "B" UNITS ON #5, #8, #8x, #71, #52 & H.T. LINKS

9 ISSUE AN ELECTRICAL ACCESS PERMIT NO 71 ISSUED AT

RESTORATION

1 CANCEL THE ELECTRICAL ACCESS PERMIT NO 71 CANCELLED AT

2 REMOVE THE SHORT CIRCUIT FROM #189B D1 FEEDER PANEL

3 RESTORE "A" & "B" UNITS ON H.T. LINKS #52 #71 #8x #8 & #5

4 CLOSE D1, D2 & D3 FEEDER PANELS ON #189B, #189A & #108. CHECK CONTACTORS CLOSED

5 REISOLATE D1, D2 & D3 FEEDER PANELS ON #108 & #189A

6 RECONNECT THE BULTED CONNECTIONS IN D1, D2 & D3 FEEDER CABLES P7A WHITEHORSE RD

7 CHECK FOR INCOMING VOLTAGE ON D1, D2 & D3 FEEDER PANELS

8 CLOSE D1, D2 & D3 FEEDER PANELS ON #189A & #108. CHECK CONTACTORS CLOSED

9 DISCONNECT THE JUMPERS ACROSS THE SK'S P81 COTHAM RD

10 TEST FOR STRB END CONDITIONS ON D3 FEEDER PANEL OV.

11 RESTORE SUB D AUX PANEL ON #189B, #189A & #108

DETAILS ENTERED ON P.E.

PUBLIC TRANSPORT CORPORATION.
ELECTRICAL OPERATIONS TROUBLE DOCKET

60148

Reported by F.O.C		At 08:42 Hrs		DATE 28: 8 : 96	
Street SWANSTON ST/LATROBE ST			Route : COMMON		Up Down
Pole No 183	Reported to R1	At 08:42 Hrs	Arr 09:15 Hrs	CL 9 : 38 Hrs	
Weather : Rain		Yes <input type="checkbox"/> No <input type="checkbox"/>	Windy		Yes <input type="checkbox"/> No <input type="checkbox"/>
			Temperature		°C

OVERHEAD DEFECTIVE FITTINGS			DUE TO SPEED		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
1 BROKEN SPAN	1A PARAFIL	1B STEEL	2 POLES DEWIRE	3 CLIP AWAY	4 FROG
5 TAP	6 CROSSING PAN	7 TROUGHING	8 TRIP SWITCH	9 LINE CONTACTOR	10 SPLICE EAR
11 S/I DEFECTIVE	11A S/I DAMAGED	11B INSERT MISSING	12 OVERHEAD OBSTRUCTION	12A ROPE	12B OTHER
13 PANTOGRAPH FITTINGS	14 PANTOGRAPH DAMAGED	15 RAIL SQUARE	16 AUTO POINTS	17 KINK IN TROLLEY	18 MISCELLANEOUS

19 TROLLEY DOWN	19A BROKEN	19B PULLED FROM FITTING	20 FEEDER CABLE TROUBLE	21 A.C. MAIN ON OVERHEAD
22 POLE DAMAGE	22A VEHICLE IMPACT	22B UNSTABLE FOOTING	23 A/Sw DAMAGE	24 CABLE OFF INSULATOR

REMARKS & REPAIRS	SPAN INSULATOR BROKEN AND HIT TRAM WINDSCREEN AFTER POLE OF TRAM 851 DEWIRED BROKEN INSULATOR REPAIRED DELAY TO SERVICE 08:40 TO 08:50 (10 MIN) 10 TRAMS ON THE DOWN DELAYED.

POWER OFF	Yes <input type="checkbox"/> No <input type="checkbox"/>	Hrs	Minutes	Total	SECTION
DELAY	Up <input type="checkbox"/> Down <input checked="" type="checkbox"/>	Hrs	Minutes 10	Total 10	SECTION C7

41

P.C.O. 2/3 *Angelo Hano's*

**This Card Must Not be Removed
Nor this Apparatus Operated
without permission from
Carlton Electrical Control**

"HOLD" CARD

Location.....ID No.....Log No.....

Apparatus affected and reason for issue.....

.....

Isolated on #'s.....

.....

.....

.....

.....

Short circuits attached YES / NO

Card attached by (Sig).....Grade

Date.....Time.....Hrs

Duty PCO3.....

Permission to remove card given by.....

Duty PCO3.....Time& Date.....

Card Removed by(Sig).....Grade.....

Date.../.../....Time.....Hrs

**Completed Card Must be Returned
to Carlton Electrical Control
Phone 96103394 / 96103395**

THIS CARD MUST NOT BE REMOVED

"HOLD"

CARD

**NOR THIS APPARATUS OPERATED
WITHOUT PERMISSION FROM
CARLTON ELECTRICAL CONTROL**

Carlton Electrical Control HOLD CARD No 1348

Log No.....

Location.....Date.../.../.....

Apparatus Affected & Reason for Issue.....

Apparatus Isolated on #'s.....

Short Circuits attached on.....

Card Attached by. Name.....Grade.....Time.....Hrs

SCADA Tag attached.....Hrs.Date.../.../...Removed.....:.....Hrs.Date.../.../..

COMPLETE THIS SECTION BEFORE REMOVING HOLD CARD

Permit on Issue Y/N Type.....No.....

Permit Issued at. Time.....Hrs. Date.../.../.....

Recipient of Permit.....Grade.....

Dept. or Company name.....

Permit CancelledHrs Date.../.../.....

Cancellation Received by: Name.....Grade.....

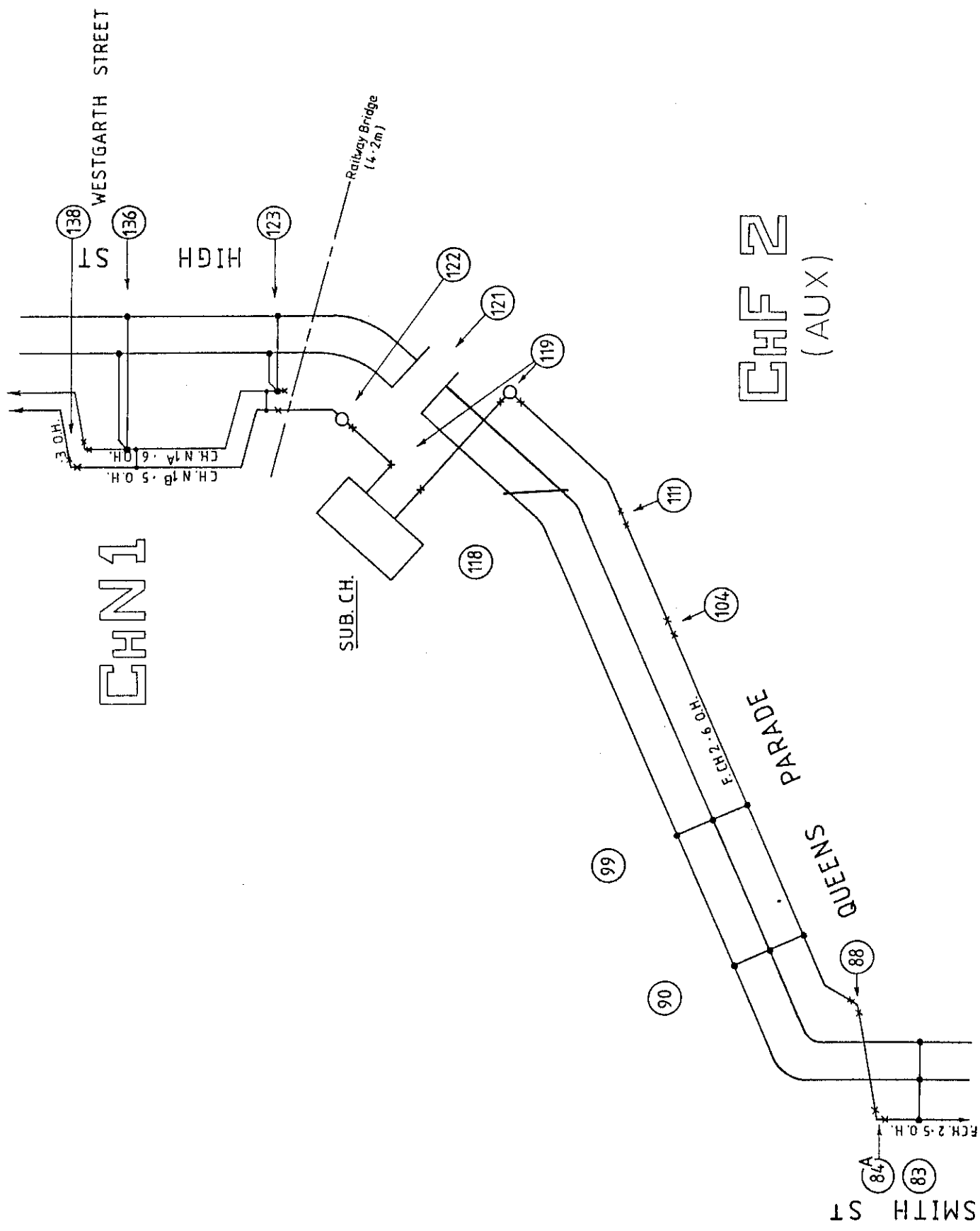
Permission to remove Card given by PCO3.....at.....Hrs

Hold Card Removed at.....Hrs. Date.../.../...

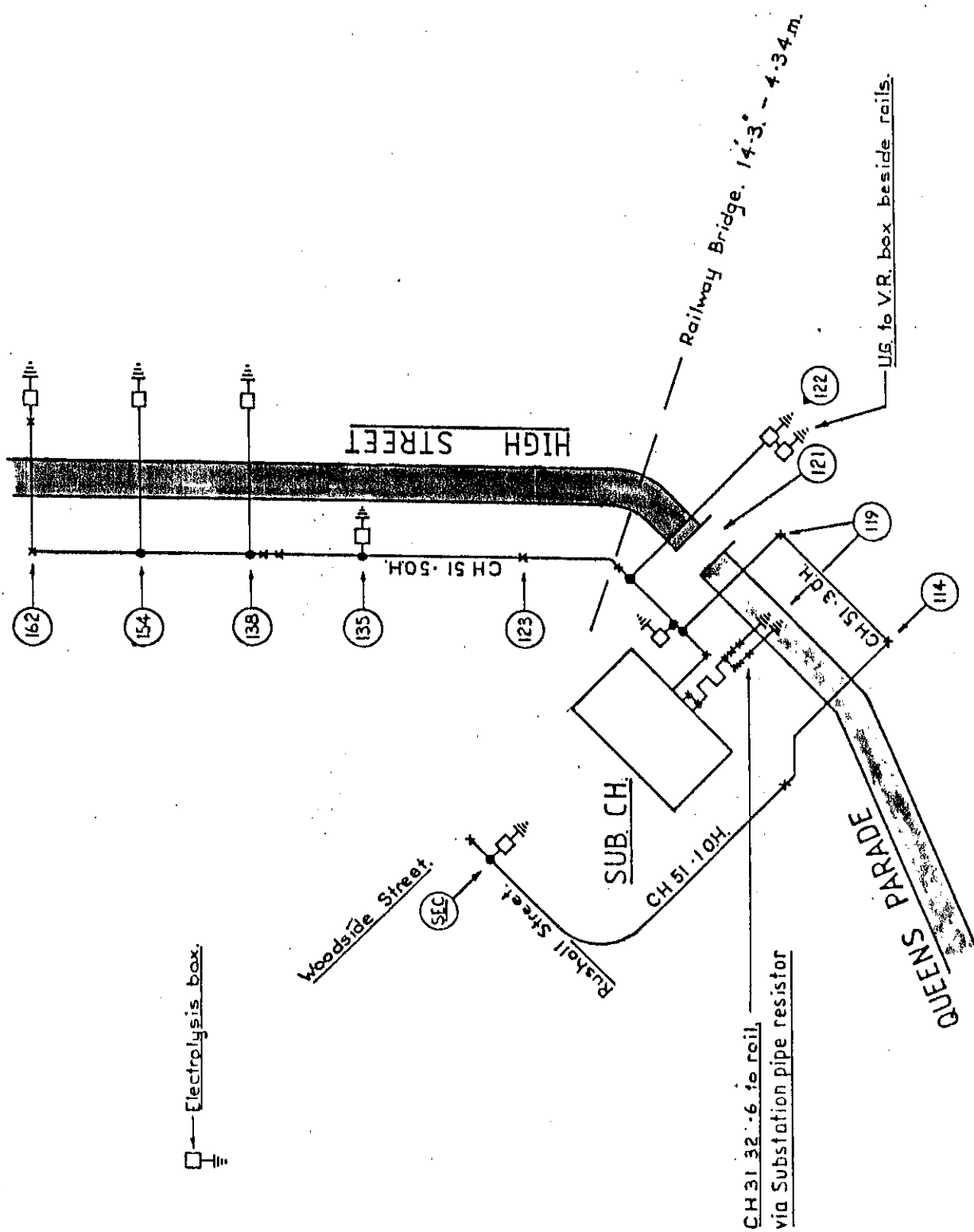
Short Circuits Removed at.....Hrs. Date.../.../...

Removed by Name.....Grade.....

Completed card received at.....Hrs. Date.../.../...By.....



				POSITIVE FEEDER CONNECTIONS				METROPOLITAN TRANSIT AUTHORITY OF VICTORIA							
JUNE 91								SUBSTATION CH				0 13-16 8			
DATE															
DRAWN															
				CHECKED				PASSED				APPROVED			
				CH											



DATE		CHIEF ENGINEER		METROPOLITAN TRANSIT AUTHORITY OF VICTORIA	
DRAWN		CHECKED		PASSED	
				APPROVED	
				SUBSTATION CH	
				NEGATIVE FEEDER CONNECTIONS	
				0 14-107	

CARLTON ELECTRICAL CONTROL

095950

TRAM ELECTRICAL SYSTEM

Date: 1/8/96 Day: THURS

SUB. RV F'MAN CACHIA IS IN ATTENDANCE WITH A SAC REPRESENTATIVE TO INSPECT DEFECTIVE MCB.	1	7.52
	2	
	3	8.28
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
METER READING. CITIPOWER STAFF WILL ATTEND AT SUBS. D, KW, S, CW, H, W, CH, F, Y & N TODAY.	12	7.56
	13	
	14	
	15	
	16	
	17	
	18	9.22
TD 59997-9 ST KILDA / COMMERCIAL RD. LINE CONTACTOR DAMAGED, DOWN TRACK. R1 NOT. 9.22 (R1 BUSY - SEE BELOW. R2 NOT.). R2 STRAIGHTENED BARS ON LINE CONTACTOR.	19	
	20	11.18
	21	
	22	
TD 59998-19A R. 34 ST KILDA RD, DOWN TRACK. REPORTED AS PROBLEM WITH TROLLEY. R1 NOT. 9.24 ARR. 9.40 CL. 10.47 FOC ADVISE TROLLEY BROKEN & WRAPPED AROUND TRAM POLE. KW ST 2 PANELS OPENED PER SIV. (SEE LINE 44) R1 & FOC NOTIFIED RE POWER OFF. R1 REQUESTED TO TEST TROLLEY DEAD ON ARRIVAL. O/S JONES NOTIFIED & WILL NOTIFY J. UITSWICK. F'MAN WILLS NOT. R1 ADVISES TROLLEY TESTED DEAD, BUT UNABLE TO COMMENCE REPAIRS UNTIL R10 MOVES TRAM 800 WHICH IS DIRECTLY UNDER THE BREAK. R10 EN ROUTE. R1 ADVISE TRAM HAS BEEN MOVED & THEY WILL COMMENCE WORK. R1 ADVISE OK TO RESTORE POWER. KW ST 2 PANELS CLOSED PER SIV AT 10.02. R1 & FOC NOT. RE POWER ON. R1 ADVISE POLES WILL HAVE TO BE PULLED UNTIL REPAIRS ARE COMPLETED. FOC NOT. POWER OFF FROM 9.28-10.02 (34 MINS). O/S NOT. F'MAN WILLS NOT. R1 ADVISE WORK COMPLETED. 2 SPLICE ERAS, SEVERAL HANGERS AND SHORT SECTION OF TROLLEY USED FOR REPAIRS. FOC NOT. FOC ADVISE T11 WAS INVOLVED. MANY TRAMS WERE DIVERTED. DEL SUN FAXED.	23	9.24
	24	
	25	9.27
	26	9.28
	27	9.29
	28	
	29	9.37
	30	9.40
	31	
	32	9.55
SIV TD 2571 SUB. ST ST 2 PANEL INDICATED MAGENTA WHEN OPENED PER SIV. PCO DODDS & MAGALAS REQUESTED TO CHECK. ARR. 9.54 TRANSducer INDICATING ZERO. PCO DODDS ADVISES ST2 PANEL WAS OPEN ON ARRIVAL. " " " MOUSETRAP CONTACTS CLEANED & ADJUSTED. CONTROL & INDICATION CHECKED OK.	33	10.02
	34	
	35	10.03
	36	
	37	10.47
	38	
	39	
	40	11.16
	41	
	42	
	43	
	44	9.28
	45	9.30
	46	
	47	
	48	10.03
	49	
	50	

Date: 1/8/96 Day: THURS 095950

PUBLIC TRANSPORT CORPORATION

TRAM AND BUS INFRASTRUCTURE

ELECTRICAL ACCESS PERMIT No.: 00599

Carlton Electrical Control Operations Superintendent ph: 9610 3391 Power Control Operators ph: 9610 3394

Work may be performed on the described Apparatus only while this Access Permit is on issue. The switching, isolating, earthing and other precautions which have been taken to make this Apparatus safe will remain unchanged during the currency of this Access Permit.

1. References: Application for Permission to Work No.: 479 Carlton Control Log No.: 1P0085
Other: _____

2. Location: BURKE RD CAMBERWELL

3. Apparatus to be Worked on: OVERHEAD TROLLEY WIRE AND SPAN
WIRES BETWEEN POLE 73 AND POLE 17 BURKE RD

4. Protection, Isolation and Earthing: CW5 FEEDER PANEL ISOLATED
+ RACKED OUT IN SUB CW. SHORT CIRCUIT ATTACHED
TO CW5 FEEDER CABLE IN SUB CW. TROLLEY WIRE REMOVED
SOUTH OF POLE 17. BATTERIES + POWER OFF SIGNS ATTACHED ON NTH
SIDE OF S/S 073 BURKE RD. LOCAL SHORT CIRCUITS ATTACHED
AT P72 AND P17 BURKE RD.

5. I, JEFF HILDER Grade PCO2 Level A AEO No. 18
certify that the condition of protection, isolation and earthing is as detailed above and the Apparatus
is safe to work on
(signed) JEFF HILDER Date 27/8/96 Time 00:33 am/pm

6. I hereby acknowledge receipt of this ACCESS PERMIT and fully understand and accept the condition that the status of protection, isolation and earthing described above must not be changed during the currency of this Access Permit

RECIPIENT IN CHARGE Name Steve Warren CP No./AEO No. _____
(signed) STEVE WARREN Date 27/8/96 Time 00:33 am/pm (phone) 0411256879

7. Signature of members of work party who require access to apparatus

	ApP No/CP No	AEO No.
1. <u>[Signature]</u>		
2. <u>[Signature]</u>		
3. <u>[Signature]</u>		
4. <u>[Signature]</u>		
5. <u>[Signature]</u>		
6. <u>[Signature]</u>		
7. <u>[Signature]</u>		
8. <u>[Signature]</u>		
9. <u>[Signature]</u>		
10. <u>[Signature]</u>		

8. I hereby relinquish this ACCESS PERMIT and state that henceforth the apparatus is not safe to approach Date 27/8/96 Time 05:20 am/pm

RECIPIENT IN CHARGE -
(signature) [Signature]

1. <u>[Signature]</u>
2. <u>[Signature]</u>
3. <u>[Signature]</u>
4. <u>[Signature]</u>
5. <u>[Signature]</u>
6. <u>[Signature]</u>
7. <u>[Signature]</u>
8. <u>[Signature]</u>
9. <u>[Signature]</u>
10. <u>[Signature]</u>

9. I have advised Carlton Electrical Control and with its approval I cancel this ACCESS PERMIT
(Sign) [Signature] (Name) FLOET (Date) 27/8/96 (Time) 5:20 am/pm
AEAP1.WEL 18/04/95

Mr. Cameron: Control Room

MELBOURNE AND METROPOLITAN TRAMWAYS BOARD

CLIFTON HILL SUBSTATION

ISSUED 10th JANUARY, 1955

INSTRUCTIONS FOR OPERATING B.G.E. SINGLE CYLINDER 600 K.W. RECTIFIER

INSTRUCTION SHEET No.31.1.55

SPECIAL NOTE:- The RECTIFIER CYLINDER and POWER TRANSFORMER are ALIVE whenever the O.C.B. Device 52, is CLOSED. The NORMAL condition for the unit is for the O.C.B. to be left CLOSED whether the unit is ON LINE or NOT. The O.C.B. can only be opened by A.C. overload, Cabinet insulation failure, Manual tripping, Operation of Anode fuse striker pin relays or Back fire indicator devices. NO SIGNAL LAMPS are installed in this Substation. It is necessary to observe the position of the mechanical ON-OFF indicator on the O.C.B. mechanism to ascertain if the POWER TRANSFORMER and RECTIFIER CYLINDER are ALIVE.

TO START:- Assuming Plant to have been Isolated

- 1A See that the Rectifier Negative Switch (on the North wall of the Substation to the Left of the front door) is closed.
- 2A See that the Iron Glad Switch on the Fan control panel is closed, that the Triple Pole Knife Switch, device 29, is in its TOP contacts and that device 10 is in the Unit A Leading Position.
- 3A See that the Emergency Switch (on the North wall of the Substation to the Left of the front door) is closed.
- 4A Close the Rectifier H.T. Links No.3 in Cubicle T.
- 5A Close the O.C.B., device 52, as follows:- The hand resetting lever should be fully inserted and depressed as far as possible until it is finally arrested by the mechanism. It will be noticed that the spring release prop engages under the roller before the hand lever reaches the end of its travel. This surplus movement is to ensure resetting of the trip mechanism. The hand lever should be allowed to return until the spring load is taken up by the prop and then removed from the mechanism. The mechanism can now be operated by the Lanyard which will pull away the prop. It should be remembered that this operation ACTIVATES the Power Transformer and the Rectifier Cylinder.
- 6A Close the manual D.C. circuit breaker, device 71.
- 7A Close device 8X and device 8.
- 8A Close device 5.
After a delay of approximately 2 minutes (while device 2 completes timing) the Rectifier should start.

TO SHUT DOWN and COMPLETELY ISOLATE EQUIPMENT

- 1B Open device 5.
- 2B Open device 8 and device 8X.
- 3B Open the manual circuit breaker, device 71.
- 4B Open the OCB, device 52, by pressing the button marked TRIP on the operating mechanism. **IMPORTANT NOTE:-** The Rectifier Cylinder and Power Transformer remain ALIVE until the O.C.B., device 52, has been TRIPPED MANUALLY.
- 5B After the O.C.B. has been tripped manually open the Rectifier H.T. Links No.3 in cubicle T.
- 6B Open the Rectifier Negative Switch.

E.12-386

Proper Care of Photographic Archives

Presenter: John Phillips
Session Secretary: Peter Letheby

Proper conservation of your Photographic archives is essential if you are to keep the collection in good condition, and today I will not only be talking about photo negatives but also prints, either colour or black and white, movie film and video tapes.

One thing you must remember is not only to preserve the Photographic History of the former tramways that operated in your cities, but also to preserve the history of your museums' operations. too many of us regard our museums as always being there, but changes do occur and they should be recorded and preserved.

Storage

Your photo archive must be stored in a dry secured area; an insulated well-ventilated room is the ideal area for this purpose. It must be dry; any moisture can be disastrous to the photo image, so keep them dry. Filing cabinets are a good way of storage as they can be locked and the negatives kept in order.

Negatives should be kept in individual plastic bags or negative holders with a slip of acid free paper inserted on the emulsion side of each negative, this paper helps absorb any moisture that may be around.

If at any stage you happen to get a drop of water onto a negative or print wash the whole negative immediately in water, don't just let it dry out, as a watermark will appear on the negative.

Movie footage should be stored in their cans, videos must be stored vertically and away from any magnetic source such as speakers and electric motors, etc.

Filing

It's all very nice having a well-stored photographic archive but it's of little use if you can't find anything. If your archive is not very large then a simple numbering system starting from one may suffice, but remember it will get larger so consider other ways of doing it.

I usually follow the KISS principle, "keep it simple stupid". In the PTC photo collection this was not done in the early days and we have a lot of different filing systems. There are H files, PR, PRC, RS, EE, M, 5, U, UC, A, CN, CNF, F, ADV, all of these negatives were filed for separate divisions. This is OK if you only wanted to look in one area but as they tended to overlap in some areas finding a certain subject was almost impossible as each group had its own book to look up and these were only in numbered order. From 1968 we have numbered the negatives as year files. eg 68/1658 or 91/592 etc this gives us an easier system as we start at number one each year.

In these times of computers it's still a good idea to keep a book record of your collection. It's a lot easier to look up a number in a book than to go through the procedure of booting up a computer. However for searching through your collection you cannot beat a computer.

Card Filing System

If your museum cannot afford a computer, or you do not understand how to work them, then a cross card index system is a good idea. A "Where" drawer and a "What" drawer are a good start. Each drawer can be divided up into sub headings such as in the "Where" drawer you could have depots, streets and suburbs. In the "What" drawer you could have the tram classes or numbers and also if its a record shot or a scenic shot. Any amount of combinations, and don't just put them in one section, spread them around in the various sections for easier retrieval at a later date.

There are many database software packages available today that are ideal for this purpose. In the PTC we use "PARADOX" and our new Pentium 100 computer can do a search through all our 500,000 negatives in just 11 seconds. Any computer with a reasonable hard drive will be ample for most museum collections and you can file other archive material on it as well. When filing into

other book, card system or a computer, try to put in as much information as possible so that when you do a search it will be much easier to find. Always keep a backup copy of your files just in case of computer failure. A computer printout of your files is a good hard copy.

Putting your photos onto CD ROM is an option but an expensive one. And the way computer technology changing, long-term usage could be a problem. If you have photographic prints only, then an attempt should be made to have copy negatives produced from them. Photographs then can be given a file number, mounted on cardboard and filed in whatever area you should choose for easy reference. These could be tram classes, locations, etc.

As the index prints have a negative number on them they can be used for reference and the negatives remain secure and only handled when a print is required. Never remove index prints from the files no matter how many promises are made about their return, they seldom are.

Copy Negatives

When copying prints try to keep the negative format as large as possible, 120 roll film in the 6cm x 7cm format is about the smallest you should use.

35mm should be avoided, as the quality of enlargements is not good. The slower the film speed the better, 125 ASA is a good benchmark.

If you are able to process the film yourself then use a fine grade developer such as Ilford Microphen and give the film a good wash when finished to allow for long archive storage.

Colour prints must be kept away from strong lights as the dyes in them fade and you will soon find your valuable prints disappearing before your eyes.

Many of us take colour slides and these are an excellent way to keep archive material, but like all colour material they will fade. Many of my 25-year-old slides have gone magenta in colour, these were Agfa CT-18 slides. However my Kodachrome 25 slides taken at the same time are still perfect. This is due to the processing that Kodachrome goes through, so use Kodachrome where possible for your archive slides.

Access

Your archive is a valuable record of your former tramway system and also your museum and should be kept secure at all times. The appointment of an archives officer is a good idea and access to the archive should be made through that officer. However a good archive is one that should be available to any researcher, it's no good locking it away from everyone so that the archive officer should be available at times for this purpose. Never let unknown people look after archive alone, no matter how many guarantees you get, a lot of your files will be irreplaceable and once lost that is it. Only let researchers look at your index prints, not the negatives. If a negative needs to be looked at only the archive officer should do this. Remember your negatives are valuable and if you have glass negatives in your collection then fragile as well.

Collection Policy

If your museum has a Collection Policy then the photograph archive should be included in this as this will give you guidelines as what to keep when offered and what to pass on to other collections.

Conclusions

Remember your collection is a valuable reminder of what it is that you are archiving and it will be around a lot longer than you or me so look after it. Keep it dry, secure, well stored and filed and very importantly keep it "alive". Keep updating it with new photos. What you take today is tomorrow's history.

Questions/Comments

John Radcliffe: Colour prints mounted on cardboard? Colour prints fade in light.

David White: Storage of negatives? Can chop between negatives

Peter Hyde: CD-Rom? Wait on better technology.

Morris Moller: Slide growth stopped or removed? Wash carefully with methylated spirits.

Depot Security

Session Chair: Peter Kahn
Session Secretary: David Neish

Discussion introduced by Peter Kahn.

Topics covered included types of security breaches – by humans, birds, animals – vandalism, malicious damage, theft, carelessness, accidental.

Birds and vermin can cause fire hazards – avoid accumulating junk/ rubbish.

Security breaches can occur during opening hours – tools, money and other valuables un-attended.

Protect visiting public from access to unsafe areas.

Actions

Check that tools and other equipment put away at end of day, buildings/ vehicles secured, electrical equipment isolated, alarms activated.

Caretaker, 24 hour security firm, movement detectors connected to audible/ light alarm and/or to police, security firm or responsible member.

Restrict availability of site keys – use master key system to prevent unauthorised copying.

Sprinkler systems to protect vehicles/buildings.

Don't have large amounts of cash left on site overnight, limit cash carried by conductors, etc.

Good housekeeping around museum sites is every member's responsibility and is a major way to ensure security risks are kept to a minimum.

Public Transport to the Grand Prix

Presenter: Jim McCrum
Session Chair: Lindsay Richardson
Session Secretary: David White

When Jeff Kennett made the announcement that Melbourne had the Grand Prix, after almost 30 seconds thought, they all shuddered. In the 1930s Albert Park was a tip and was turned into a park. The residents thought it was theirs, while Melbourne people said it was everyone's. Residents didn't want a grand prix through their park. The government decreed that there would be no car parking in a defined area around the grand prix track. Residents had to get a parking permit, and others such as delivery truck drivers had to get an access permit. There were criteria to meet to get a permit. Major advertising was brought in with catchy slogans such as 'No Albert Parking' to encourage people to use public transport. To get people to the track and do it safely, they had to:

- react quickly to breakdowns
- create St Kilda Road as an alternative to the light rail
- do infrastructure work to create a loop with light rail, Fitzroy St., and St. Kilda Rd. to provide an escape route for trams if anything went wrong.

The method involved:

- express running from Spencer St. to Wright St. and from Flinders St. to Albert Road in St. Kilda Road
- so called cattle pens to direct people onto trams

- staggered services so that the front tram travelled the furthest, the next tram travelled to an intermediate point, and the next tram travelled the shortest distance. This meant no delays by trams stopping to offload passengers.
- Factors to make it all work:
- Drivers were used to driving on their patch, and generally didn't know foreign tracks. They had to be trained up. To ensure they knew the route, they were issued with booklets covering:
 - the route map
 - overhead map showing where pantograph and pole cars could and couldn't go
 - order of Grand Prix events
 - parking restrictions
- use of express running with no cars or people to impede progress
- had to cover a shortage of drivers by asking them to work 5.5 hours without a break instead of 4.45 hours — 9.45 hours a day in all instead of 8 hours
- also they had to have drivers take meal breaks away from home depot
- there were negotiations with unions, as for 80 years the time worked between breaks had been 4.45 hours
- There were investigations to find a precedent. In 1956, the union broke the awards by working in excess of 4.45 hours by 5 minutes for the Olympics
- To break the award, the union members were offered \$20 an hour. This was rejected and \$50 an hour negotiated and accepted
- It was ensured drivers and other staff were fed nutritionally balanced meals to keep them capable of handling the extra work load. South Melbourne depot provided the meals with mixed success.

During the four days:

- at Spencer St. CO Ian Dobbs directed people, but in the hot weather, he and other senior managers wilted and CSE took over
- inspectors dispatched crowded trams
- traffic lights were either switched off and manned by the police or synchronized to the tram speed
- trams ran at 60 kmh at 10-second intervals
- infrastructure had been upgraded
- on all trams power unit switches were switched on

Twelve months of planning, training, tram priority work, upgrades of power supply, signage etc. preceded the event. The trammies wanted to show up Mr. Kennett and show what public transport could do. Sixty two percent of all people travelled by public transport. Fifty one percent of corporate stand ticket holders such as MD of Holden Special Vehicles used public transport because they couldn't park their cars anywhere at the track. 400 wheelchair bound people attended using public transport.

The event was concurrent with Moomba and the system was stretched to the limit:

- early on Thursday morning, people who worked at the Grand Prix were waiting for trams
- inspectors and managers from depots looked after their staff so that drivers met a familiar face.
- St. Kilda Rd. running came unstuck because not everyone wanted to go to the Grand Prix. Some people wanted to go to work or Moomba
 - on Thursday, trams weren't stopping at all tram stops and running express

- after that trams stopped all stops but took an hour to get to Melbourne University instead of 17 minutes
- people worked at St. Kilda junction for 14 hours straight because they knew how to run it and didn't want to give up their patch
- tram staff had power to direct police and had them close Swanston Walk

The first day had steady demand as people only visited for short periods rather than all day. There were more people on the second day and they had to react fast to handle the traffic. So B2s from Preston were replaced with Zs on Bundoora, to replace them on Grand Prix services. There were no complaints and everyone cooperated, so it happened.

On Sunday there were big crowds:

- Bass stuffed up as Gate 5 ticket holders were directed to Gate 1 the corporate entrance. The GP people wanted the ticket holders taken back, but they were forced to admit them.

On Sunday night, John Farnham entertained the crowds so not everyone tried to leave at once. There was still a big rush. Clarendon Street shopkeepers who had applied for extended trading hours and hired extra staff missed out as trams flowed by and nobody stopped. This was the only complaint received.

Trams travelled at high speed through auto points instead of stopping, but the points didn't fail all weekend. This was despite drivers holding their own 'grand prix' comparing times and speeds! There was a tram breakdown, but RIO reacted so fast that the following tram never knew as the tram had already been pushed towards the Spencer Street Remand Centre shunt. Overhead repair crews were on standby in the same area. There was a squeeze point for trams where people gathered when hessian did not go to the top of the fence and was pulled down.

Lessons for next time:

- services on the light rail/St Kilda Road loop will be extended
- No. 12 trams were replaced with buses but passengers were not told. LSEs informed people
- Moomba crowds were not moved
- thousands were stranded in the city as they could not catch last trams due to overcrowding. They are considering 24-hours running for the first time in many years
- drivers found new ways of getting trams back to Preston and Camberwell depots. The Monday public holiday is needed to move trams back to their home depots. The next Grand Prix will not be on a long weekend. The government will have to declare a public holiday to get trams back on Monday.

Questions

Les Withington: is it good training for the 2000 Olympics in Sydney? Yes. The Lesson is to make public transport friendly and free of cars. You have to get people out of cars.

Warren Doubleday: what changes will there be next time? There will be no South Melbourne depot producing accessibility problems. St Kilda Road will be handled differently. Melbourne University people will get a proper service.

Len Millar: did the PTC and Jeff Kennett express appreciation to staff? Yes. Managers without operational experience were forced out of their ivory tower. They were met with awesome sight of vast crowds and only four trams. But more were only 3 minutes away and no breakdowns had been reported.

Trevor Dennhardt: why was it held over the Moomba weekend? An extra day was needed to bring trams back to depots. Jeff Kennett had asked for the race to be held on that weekend.

Lindsay Richardson thanked Jim McCrum.

Wheels, Skids, Pantographs and Bow Collectors

Chairman: Dennis O'Hoy, Bendigo Trust

Panel: Dennis Bell, Bendigo Trust

Craig Tooke, Melbourne Tramcar Preservation Society

Ron White, A E T M, St. Kilda, S A

Carolyn Dean, Ballarat Tramway Museum

The Chairman opened the discussion by introducing the panel.

Dennis Bell asked how many museums had trolley wheels only? Adelaide, Ballarat, Brisbane and Sydney have wheels only at present. Bendigo cars all had wheels until recently, but because new overhead wiring was installed, all the bogie cars were changed over to skids. The fleet of single truck cars still have wheels at present. Bendigo had wheels for nearly 100 years and were reluctant to change, but the wheels were causing a lot of damage to the worn wire. The carbon skids have maximum wire contact and, with lubrication, no arcing or overheating takes place. With the new wire in place, and carbon skids on most cars, Bendigo is getting much better service from its overhead, and with much less maintenance.

Craig Tooke stated that skids were introduced into Melbourne in 1956 on new W7 type cars. Because of operating noise these cars were fitted with resilient wheels and skids. Pantographs came later with the new cars because of power draw. The trolley pole heads fitted to experimental cars, nos. 2001 & 2002, melted with the heat caused by the power draw. However pantographs can, and do, snag the overhead, pulling it down and causing great damage to themselves and the overhead. A figure of \$9000 was mentioned for a new pantograph. Mr Tooke then tabled a copy of "Proceedings of the Australian & New Zealand Tramways Conference", held in Sydney in March 1934, dealing with experiments carried out in various cities with trolley slides and comparison with wheels. Colonel S H Hancox, of Hobart, makes some comments on bow collectors in this paper. See Appendix B.

As an historical aside to this conference the building in which it was held (Bank of New South Wales, 7 Wynyard St, Sydney) is still used very much the same today as it was then by the Bank—now Westpac Banking Corporation.

Ron White told of experiments, in Adelaide, in 1935, with pantographs and Fischer bow collectors but nothing came from these events. About 40 years ago, on the Glenelg line, a trolley pole got caught in the overhead and pulled down half a mile of wire near Morphett Road, causing much damage and disruptions to services. Pantographs were finally fitted to the 'H' class, Glenelg cars, during refurbishment and these were introduced into traffic when the new Glengowrie depot was opened about 1985.

Carolyn Dean then gave a humorous talk on her experiences, as a Melbourne tram driver, with poles and pantographs. When the 'Z3' class trams received pantographs they were placed at the No. 2 end as opposed to the 'A' class at the No. 1 end. Prior to raising a 'Z3' pantograph it is necessary to switch on the battery, obviously the battery must not be switched off before the pantograph is lowered.

The advantages of pantographs are:

- do not get wet changing ends in bad weather
- do not get run over by errant motorists
- do not get dirty hands
- no trouble with rope retrievers
- no problem with front pole still up, especially on one person operated trams
- fewer back problems from pulling down poles
- no problems with poles coming off wire and breaking overhead or span wires or bending poles
- at night tram is always lit

- less maintenance on pantograph and no eyesight damage from particles from carbon insert in pole shoe

The disadvantages of pantographs:

- prone to catching under troughing at over-bridges thus necessitating reduced speed
- if overhead fittings are loose problems can occur
- if a pantograph is pulled off a car and hits the road replacement cost is \$9000 and management takes a very dim view of this
- other problems are running with both poles up or with pole and pantograph up (a comment from the floor suggested these situations caused the tram to go twice as fast — much laughter ensued).

Lindsay Richardson then asked Dennis Bell about information on converting from wheel to skid? Dennis replied that he took notice of ideas from Keith Kings, Bill Kingsley and others about mixing wheels and skids (see attached diagrams). Lindsay asked about damage from using both. Craig Tooke replied that overhead with no fouling fittings can have wheels or skids in poles as well as pantographs. Careful maintenance of overhead can prevent any spikes, etc on the wire. John Radcliffe said that trams from their museum were changed from wheels to skids when they work on the Glenelg line. Richard Gilbert said their museum was retaining trolley wheels on the poles mainly because of history. One run was done with a tram fitted with skids and the skid got caught in the overhead resulting in the pole being ripped off the car roof. This event, as well as the historical reason, persuaded them to retain the trolley wheel.

When trams, in Ballarat, are stabled in the depot single truck cars have their pole up and sitting on the edge of the troughing and two pole trams have one pole down and the other up and sitting on the troughing. This action prevents any fire starting from lightning strikes and makes movement of cars easier in the event of a fire.

Don Smith mentioned that Hobart went to bow collectors to get around Sprague patent rights. He also asked whether Melbourne trams had two pans on their pantographs. Craig Tooke replied that they did and this meant that longer section insulators were needed, compared to the requirements for single pan units or skids or wheels, to avoid bridging between sections.

Phillip Bertram asked about the life of a skid? Craig Tooke gave details of maintenance and inspections every 100 hours.

Bill Kingsley asked whether pantographs were fitted to the Glenelg cars to enable higher speeds to be run? Ron White thought that this was not a major factor in the conversion from poles to pantographs. He made reference to the Chicago and North Shore line operating at speeds up to 80 mph with poles and no problems.

John Bullen commented that poles with wheels on single truck cars drew 30 amps and poles with skids on bogie cars drew 200 amps. So far they had not had any problems with cars fitted with skids.

Phillip Bertram asked who manufactured the skids? Craig Tooke replied that they were made by Morganite. The cost is \$50 each including the brass block required for each unit. Barry Ollerenshaw pointed out that there are high and low quality skids and, no doubt, high and low quality prices to go with same.

Craig Tooke advised delegates of further reading material on the subject under discussion in a book titled "Current Collection Methods for Tramway and Trolley Bus Systems". This work was published, in 1975, by the authors, G E Bradley & E R Oakley, and its ISBN No. is 0.903479.04.4.

Dennis O'Hoy commented that he was pleased Bendigo was staying with poles because of memories he had, as a child, of pulling poles down around the Bridge St area.

As no further discussion was forthcoming the chairman closed the conference session and thanked all delegates for their interest in this subject.

The \$ Value of Trams

Presenter: Peter Hyde
Session Secretary: Keith Stodden

The determination of the value of trams was based on an analysis of the Why? And the How? museums tried to reach a figure.

Under Why?, accountability for funds was cited, in connection with a possible purchase (or a sale). Further, submissions to Government, figures would need to be quoted. Is a tram's value what it cost?

Turning to insurance, the value could depend on whether the tram could be replaced or whether, like the Mona Lisa, it is unique. The value of a half-destroyed tram was discussed, and the cost of repairs would have to be taken into account. In deciding what a museum is covered for, the value of individual components (and labour) must not be overlooked. Phil Lange said TTMS 141 was not insured, as the premiums would be unsustainable over the years. Bob Merchant said fire was the greatest threat, of Parramatta, so the instalment of sprinkler systems had led to lower premiums. Peter Hyde said damage by vandals could more easily be repaired. Len Millar pointed out that if you were underinsured the Company would reduce any payout. John Shaw asked about the Met's insurance and Len Millar replied that the Government had none. Peter Kahn said that W2 244 for Christchurch was insured for a fixed amount. In the end, it boils down to what the museum can afford by way of premiums. Ian cooper suggested the figure could be based on the cost of building a replica—a common practice now in the US.

Peter Hyde said the cost of insurance could be used in promoting the museum. Len Millar quoted the case of W2 514, a fully operational car that had been in the open at Tylden, that was purchased for \$5,000. Len went on to say that the value is clear after the purchaser and the vendor agree on the price, i.e. there is a meeting of minds, without which there is no deal. Bob Merchant said two W5s were reported to have been sold in the U.S. for \$50,000 each. John Shaw said PETS had paid the scrap metal value of \$1,000 for its W2s, and more for its SW2 426. Elton John's W2 520 cost \$10,000. Bob Merchant said the W2 fleet at Seattle had cost \$350,000 to refurbish for service. Keith Kings commented that the figure quoted to Minister Alan Brown that a Melbourne tram brings \$250,000 or more in the U.S. is rubbish. That figure includes all the on-costs. A more likely figure would be \$50,000 to \$100,000 in Australia to despatch the tram, plus \$150,000 to put it on rails in the U.S.

Peter Hyde opened discussion on the How? by stressing the purchase price paid by the museum. The value could be based on its market value, as agreed by buyer and seller, or on its replica or replacement value, or simply on what is in the tram "as is". No museum, he found, had yet brought in a valuer for its trams. Museums should be wary of using any one-off figure (maybe sentimental) to determine the value. By way of illustration, Bob Merchant reported how a Maroubra Junction pub at first wanted \$17,000 for W2 411. In the end, SPER dismantled and removed it for free. Keith Stodden mentioned an offer of several W1 class seats by Elsternwick Bowling Club, who wanted a price the museum could not afford (The Club has since folded). Len Millar spoke of BTM's experience with W4 671's brake shoes prior to its Melbourne City Circle running. Adjustments were needed, taking several workers several days, of volunteer labour, so sponsors were sought. When the State Government granted \$3,000, the requests to sponsors were reduced. Bruce Dale pointed out that in our accounting we don't allow for appreciation of the trams, only for depreciation, and yet their value may increase as they get older, and rarer.

Dangerous Goods

Presenter: Len Millar
Session Secretary: Barry Ollerenshaw

Dangerous goods are defined by statute and are classified into different classes eg. Class 1, 2, 3, 4 etc., depending upon their flammability.

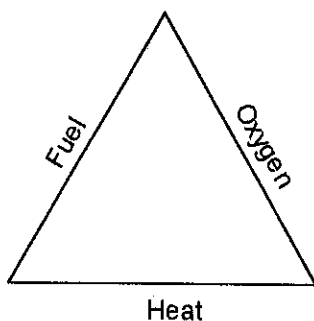
Who has a dangerous good store in their museum?

It all depends on the quantity stored in total that dictates need, check with your local council and fire brigade. Must be a minimum of three metres from other buildings. All containers need to be approved for their use by the Chief Dangerous Goods Inspector.

They may be glass, earthenware, metal, and must have an airtight lid.

They must be kept in their container they originally come in, and must be labelled. If you decant into another container it must be so similarly labelled. It is an offence to remove, or disfigure the label in any way.

They must not be put next to any combustible product.



They can be divided into three groups:

Liquids

Petrol

Thinners

Kerosene

Oils

Turpentine

Methylated Spirits

Gases

Oxygen

Acetylene

LPG

Chemicals

Paint Stripper

Weed Spray

Solvents

Paints

Where to store:

Need a steel container, (fridge ideal), lockable and labelled.

Must be identified—keep original label, so that other people can read how to use the product.

Must be kept cool and dry.

Plenty of ventilation and no naked flame or sparks.

Different chemicals and liquids need to be kept separate.

Containers must not be allowed to leak.

Forty-four gallon drums should be kept in a separate store.

Oxygen and acetylene

Blow back valve—turn off after use.

Bleed hose.

Keep near a door for easier removal in case of fire.

LPG

Kept near a door (as vapour is dangerous, and it keeps low as it is heavier than air).

Waste:

Steel bin with lid. Remove daily or when finished.

It was noted that linseed oil can be self combustible, so care has to be taken after a days work.

The Internet and How it Can Help You

Presenter: Les Stewart

Session Secretary: Peter Hyde

This session took the form of a practical demonstration of the Internet with visits to several sites of tramway and railway interest.

Before the actual demonstration, several issues were raised. The first of these asked what was the relevance of late twentieth-century technology to groups preserving early to mid twentieth-century technology. The obvious answer was that of Marketing. The Internet is a potent distribution channel to a vast marketplace. The origin of the Internet was as a mechanism for exchange of informative primarily amongst scientists. In its current developed form, it could be a useful tool in promoting actual museums as places to be visited (physically), and in publicising the souvenirs and publications that we sell.

The final idea offered to the meeting before the actual demonstration was—what should COTMA be doing?

The demonstration included examples of highly professional sites, as well as others showing poor presentation and incorrect information.

The Ballarat Tramway Museum home page was offered as an example of a “good” entry. It included:

- membership application
- sales information
- opening hours
- location.

A feature was the “Guest Book” where site visitors were invited to record their visit. “Thank you” e-mail is then sent to each recorded visitor, and the details can be used as the basis of a mailing list for e-mail in the future.

The Puffing Billy site was an extremely well developed one with museum descriptions, photographs, timetables, etc.

As an example of an organisation similar to COTMA operating a home page, the Association of Independent Railway Museums Society in UK was shown. This home page linked to subsequent entries for individual organisations.

There is danger that unless COTMA or individual museums do not establish an “official” Home Page(s), individual people may do so and provide information which is not correct or appropriate for museums concerned.

Discussion centred on cost and practicalities. By way of example, Les quoted the \$NZ50 per annum for maintaining the home page of NZRF. However the more pages, the cheaper the unit cost.

The development costs were not quantified. These can be done individually or prepared by external agencies with costs determined by the product and the market.

There is a risk in using cheaper smaller agencies, that they may not have long-term sustainability and the example was given of the Launceston Tramway Museum whose provider ceased to operate.

There seemed to be a “feeling” that COTMA should become active in this arena but no definite propositions emerged, other than to suggest that the subject be brought up at the Annual General Meeting.

Conservation Planning in a Tramway Museum Environment

Presenter: Warren Doubleday

Session Secretary: Tony Cody

Summary: Conservation Planning is a useful tool in improving the conservation management of our tramcar collections. Tramway Museums are responsible for ensuring their collections maintain their cultural heritage. This paper reviews the use of this planning tool, its origins, outcomes and how it may be applied in practice.

1. Introduction

Conservation Planning for heritage buildings is well known, but less so in the railway/tramway Museum environment. The purpose of this paper is to provide an insight into the Ballarat Tramway Museum's Conservation Planning and its implementation.

Why bother? Our trams are of cultural significance. We, as their custodians, are responsible to ensure that they survive for future generations to enjoy. They must not disappear or become some meaningless piece of old equipment which has largely lost its heritage due to poor conservation practices.

For us, conservation is the process of identifying and managing the cultural values of our tramcars. It is not a fossilising process that renders the tramcar unusable. As part of the interpretation of these museum objects to the public; we operate them. To enable this, calls for work on the tramcar itself and a requirement that we know what we are doing in affecting its heritage.

When we took on the preservation of our tramcars and their associated cultural heritage, we knew little of formal museum practices. With museum and rail safety accreditation coming into vogue, documented planning of the conservation of tramcars is yet another element to absorb. We have become over time, museum professionals.

2. Background

2.1 What are the various definitions?

To define the various terms used in conservation planning, these are given by the Burra Charter.⁽¹⁾

Conservation means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and will be commonly a combination of more than one of these.

Maintenance means the continuous protective care of the fabric, contents and setting of a place and is to be distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.

Preservation means maintaining the fabric of a place in its existing state retarding deterioration.

Restoration means returning the EXISTING fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Reconstruction means returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of materials (new or old) into the fabric. This is not to be confused with either re-creation or conjectural reconstruction which are outside the scope of this Charter.

Adaptation means modifying a place to suit proposed compatible uses.

These definitions are the generally accepted ones for the museum environment, except *place* is substituted by *object*. Those for restoration and preservation are quite different to what we were brought up to expect, especially the oft used expression, *restored to original condition* as it may apply to a steam locomotive, or even a tramcar.⁽²⁾

2.2 The Burra Charter and other documents

The *Burra Charter* is the generally accepted document by heritage authorities and professional conservation practitioners in Australia as the basis for identifying and managing heritage places and objects. In 1992, the Institute of Engineers of Australia adopted the Charter as a basis for the conservation of engineering works with minor amendments to cover moveable engineering objects.⁽³⁾ The BTM adopted these in 1993 and has been using these as the basis of its Conservation Planning.⁽⁴⁾

2.3 Why have a plan?

One of the purposes of a conservation plan is to provide an understanding of the object to be exhibited. It establishes the significant elements so as to form a policy for future work and enables a flexible approach to this. A plan need not be an onerous document that leads to excessive controls, but one that establishes whether there is a need for controls.

As a part of the planning process, the BTM prepared a Fleet Conservation Policy document. Its purpose is:

- form a set of guidelines and directions for future conservation work on the existing fleet of trams held by the Museum
- formulation of guidelines for exhibition, standards, operational configurations and liveries
- allow others not directly connected with the Museum to understand the background of the policy
- establishment of a policy that enables past errors to be identified and rectified.

2.4 Relevance to Museum Aims

One of the general aims of a museum is to acquire, conserve and exhibit their objects they have collected. A conservation plan, if correctly done, allows for a considered decision to be made about the object being conserved. Competing interests within the museum may desire different outcomes. It enables operational requirements to be taken into account and sets up guidelines for actually carrying out the work within the museum. It demonstrates to both museum workers and others that a considered decision has been taken with regard to the object's future.

Having completed an extensive plan for Electric Supply Co. Ballarat Tram No. 12, it was an enlightening task that gave us an insight into the tram's significance and that we should be careful in what we did. It was part of the overall education process and has helped us to improve the attainment of our museum's overall aims, of establishing an authentic working tramway museum.

2.5 Our Cultural Heritage

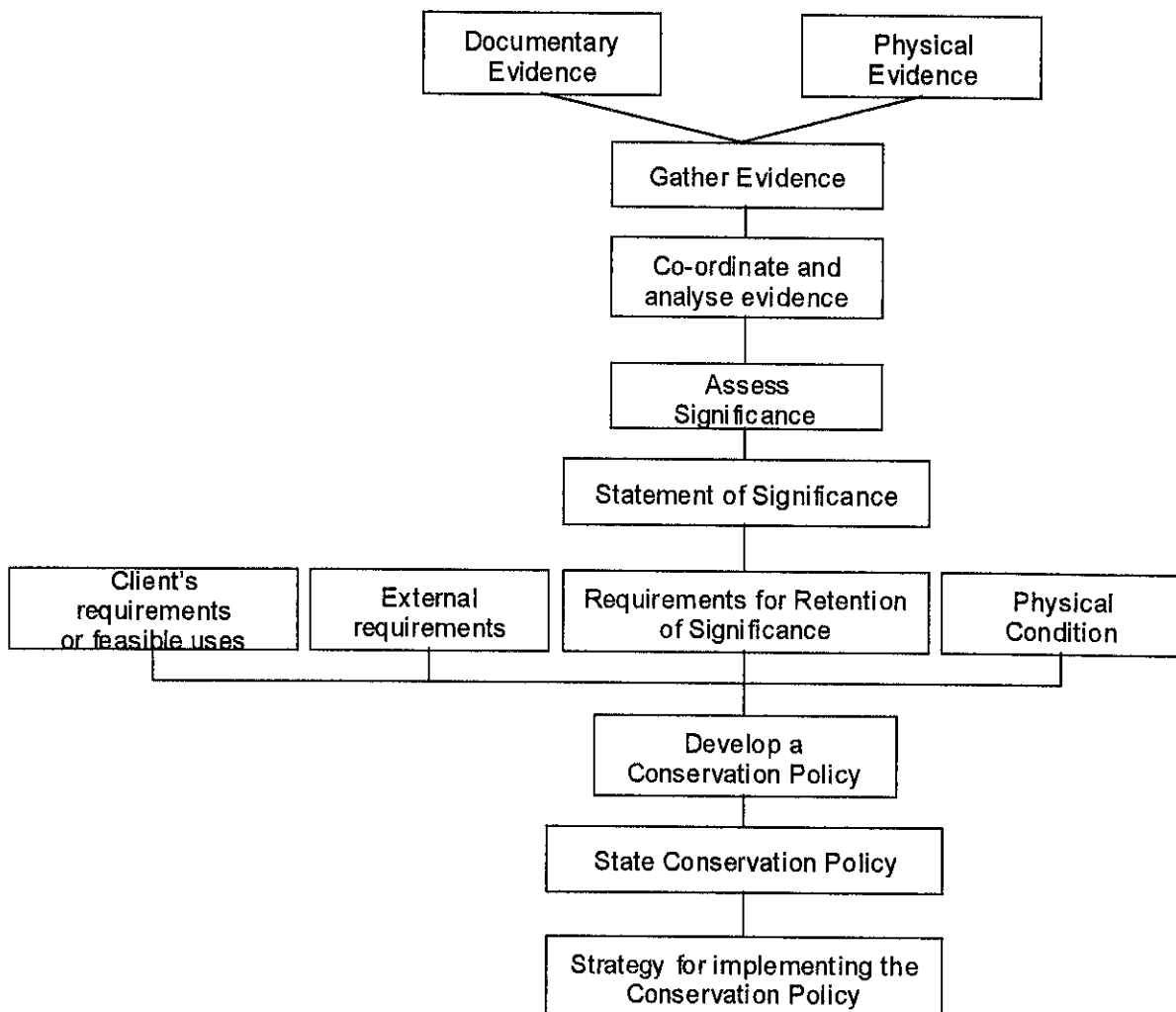
Urban tramways played an important part in the development of our cities. Tramway museums have taken on the preservation of this part of our social history. As such we are responsible for this part of our Cultural Heritage. To ensure that our tramway culture survives in an operable condition, we must understand the process of conserving it and work hard at it. Make too many errors today, we will not hand the heritage onto future generations to a standard that it could have been done to.

3. Conservation Planning

3.1 The Principles

The principle element of any Conservation Plan is the Statement of Significance. It should stand alone, and answer the questions "Why is the object significant?" It allows the identification and assessment of the object's attributes, informed policy decisions, suggests constraints on future actions and introduces flexibility by identifying areas which can be adapted or developed with greater freedom.

The Institute of Engineer's guidelines formed that basis of the planning for ESCo. No. 12. These were drawn from a guide to conservation planning, published by the NSW National Trust.⁽⁵⁾ The flow chart shows the methodology followed. It is typical of the planning carried out by major museums.



3.2 The Process

The process is one largely collecting historical evidence, current conditions of the object and then analysing this against questions about the object itself. For example:

- Does it have a high degree of technical or creative excellence?
- Is it an important example in the development of the object class?
- Does it demonstrate technological change?
- Does it demonstrate a way of life or a strong association with an important figure or a cultural phase?

Following the development of the Statement of Significance, the subsequent policy can be developed knowing the various restraints, requirements and its physical condition. The major elements of the policy to be considered are the need to:

- retain or reveal significance
- identify feasible and compatible uses
- meet statutory or safety requirements
- work within procurable resources.

As part of the process, alternative solutions can be developed and assessed against the museum resources, what is desirable and what the museums aims are. From this process comes a series of recommendations that give the desired outcomes from which the implementation phase can be assessed against.

3.3 The Outcomes

The plan should include recommendations for:

- physical conservation action and care necessary for retaining or revealing significance
- uses which are both feasible and compatible or constraints on use
- public access and interpretation
- security
- controls on future development and change
- the control of investigation and physical intervention.

Another outcome is that the people who are going to undertake the physical work is that they know what is expected of them and why it is important to undertake the task with care and a good history of the object that they are working on. This allows them to convey their knowledge to others, such as a visitor in an understanding manner.

3.4 Carrying out the Work

As part of the preparation of the BTM's Conservation Policy, we included a section on undertaking the Conservation work. This lists a number of guiding principles to work by and to be taken into consideration. For example understand the object, don't alter the final appearance, keep records, conserve the technology, use appropriate methods, talk to others, be mindful of safety considerations, don't over embellish, check if new methods or materials may not be as suitable as they first seem and keep all work faithful to object's history and cause.

While the physical attainment of these may be difficult to achieve, we must try our best in order to properly conserve the object for the future.

4. Examples

4.1 A Major Plan—ESCo. No. 12

The Museum's major Conservation Planning exercise has been that for *Electric Supply Co. of Victoria* Ballarat tram No. 12. This was a significant document. Comprising some 40 pages with photographs, it undertook a detailed examination of the tramcar body and made recommendations which have been reviewed and accepted by the Museum. It was also commented upon by a number of outside bodies, including an Officer of the Historic Buildings Council of Victoria (now Heritage Victoria?) and Science Works Museum at Spotswood.

One element still missing from the background, despite extensive research of the technical literature of the time in the State Library, is the type of electrical equipment that was supplied with the tram itself. This has held up the final completion of the document

The Tramcar Itself

A detailed examination of the historical background of the tramcar placing it in the context of Ballarat's tramway history was prepared. These included its origins in Sydney as a cable car trailer in 1892, its operating history, disposal, recovery, human factors, (crew, one man operation and passengers) and finally its impact on Ballarat. This was followed by analysis of the physical evidence and discussion of problems encountered in its operating history. After analysis of the evidence, a Statement of Significance was formulated.

Planning for its Future

This part looked at various options, included whether it should be operated at all, what type of braking system to install, seating configuration, painted finishes etc. Recommendations were made with regard to the retention of existing fabric, methods of introducing new materials, body strengthening, equipment and recording during the reconstruction process. Other recommendations covered static and operational display.⁽⁷⁾

Examples of some of the elements of the plan are:⁽⁸⁾

- The body of No. 12 is a notable object having historical and technical significance as the only surviving example of a former Sydney cable tram body converted to a Ballarat electric tram.
- The body has technical significance in that it shows how an older body underwent modifications to become an electric tramcar. It shows the stage of development at the time of an underframe for an electric tramcar in Australia as well. It also provides details of paint schemes used on the tramcars by ESCo. not accurately recorded previously.
- Its social significance is important in that it is a reminder of the lifestyle that tramway crews had to work under and the related union battles. ESCo. was the first to have one man operated electric trams in Australia.
- From an operational viewpoint, an air braked tram would offer a safer vehicle and be able to be driven by all qualified drivers as it is compatible with existing trams. It would require extensive modification to the tram to fit the equipment however. The frame may not be strong enough to withstand the forces put on it by the air brake cylinder and this system would not technically be correct. (The tram is to remain as a hand-braked car.)
- The tram body is recommended to be reconstructed to the outward appearance of the 1905 configuration, that is no windscreen. Seat bases to be installed into the 1905 locations with full length footboards. Pins to be provided so that the seat backs are fixed into position during operation to maintain passenger safety.

4.2 A Minor Plan—SEC No. 28

The Museum is currently preparing a Conservation Plan for Ballarat SEC No. 28, a tram that began its life in Melbourne in 1916 as Hawthorn Tramways Trust tram No.7. It was sold to ESCo. in 1930. At present the tram is presented in the 1940/50s SEC colour scheme.

In the Museum's Fleet Conservation Policy document, the following comment was made with regard to the tram.⁽⁹⁾

If tram No. 11 is repainted in the 1940s/50s SEC livery then this tramcar could be painted into another colour. A suggestion is to an ESCo. colour scheme, in which it would have been painted at one time (photograph exists). Could set the car up during the change over period between a strict California combination and the SEC Ballarat style. This would result in another red tram in service. The relocation of the pillars to correct position could be done, although this would constrict the doorway opening. It also would result in only one door on each side instead of two. The door would be on the front left hand side of the car, ie offside when running into the traffic in Wendouree Parade. Problem if running north in Wendouree Parade would be the front or driver's door could be on the wrong side to load passengers. A compromise may be needed. Further work to be done on these circumstances.

Work recently commenced on repairing a split frame member and other repair jobs needed on the tram. The opportunity will be taken to repaint the tram, and to assist this the preparation of Conservation Plan is underway. There are a number of problems in presentation, as outlined above. Another problem, although relatively minor, is one of those "nice to haves" windscreen wipers. They were not fitted until 1943!

Conservation Planning allows consideration to be given to these problems, and come along with what hopefully is, the best option to be adopted. However any option should take into account what may be done in the future and be flexible in its outcome.

5. Advantages of Conservation Planning

The advantages of undertaking Conservation Planning are:

- get to know better the object you are looking after
- determine its significance in your collection
- examine options what can be done
- following analysis determine what is the most appropriate option for conservation to be done, given the museum's circumstances and needs
- detail what work is to be done and how it should be done
- what precautions should be taken so that the loss of evidence of past practices is minimised
- avoid mistakes that may have been made in the past by not undertaking such planning
- allows comment by peers in the museum industry in general to be made
- shows to others that you know what you are doing
- explain to non-museum or non-heritage people that conservation of our collection is important and that changes to conform with their thoughts perhaps should not be undertaken lightly without proper consideration
- hopefully be of assistance in obtaining funding for your projects by showing that you stand above others seeking the scarce dollars
- show that our trams are of cultural significance and not "big boy's toys"
- we have a responsible attitude to the conservation of our collection for the future.

6. Conclusion

Although Conservation Planning may seem to be another way of yet chopping more trees down, done sensibly it does have benefits. It gives a better understanding of our tramcars. We are responsible for the conservation of their cultural heritage. It enables this responsibility to be applied professionally to our collection.

References

- (1) *The Burra Charter*, The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, 1988.
- (2) Gerard Hill, *The only Genuine Article*, Steam Railway, December 1993 pp63-64.
- (3) *Engineering Heritage & Conservation Guidelines*, Institute of Engineers Australia, Canberra, 1992.
- (4) W Doubleday, *Are Tramway Museums Restoring Trams?*, Trolley Wire, May 1993, pp3-8
- (5) J S Kerr, *The Conservation Plan*, National Trust of NSW, Sydney 1990.
- (6) M G Whitmore, *Researching and Conserving a Unique First World War German Tank*, Transactions of Multi-Disciplinary Engineering,. Institute of Engineers, June 1992, pp65-72.
- (7) L Conole & M Hallett, *Hands On, Hands Off, A key guide for Decision Makers, Activating heritage artefacts—the conservation and safety issues*, Scienceworks, 1993.
- (8) *Conservation Plan for ESCo. Ballarat Tram No. 12*, Ballarat Tramway Museum, 1994.
- (9) *Fleet Conservation Policy*, Ballarat Tramway Museum, 1995, December 1995.

Questions/Comments

John Radcliffe: what could be done to prevent members working on trams without due care? Try to keep projects limited to one car:

- develop plan of work to be done
- carefully store parts removed from tram.

Lindsay Richardson: what is the policy regarding ownership of tickets, coins, etc. being found in a tram when parts are removed? All such finds should be property of the museum. However most of the tickets recovered were in too poor a condition to qualify as exhibits in a collection.

Don Smith: who was the builder responsible for the Ballarat rebuilding of car No. 12 and what mechanical parts remained on the car? Duncan and Fraser rebuilt the car in Ballarat and no parts remained of the mechanical gear as the tram was completely stripped.

Vision Testing for Drivers

Presenter: Bill Kingsley
Session Chair: Ron White
Session Secretary: Bruce Dale

Late last year (1995) I reported to my regular doctor for my medical check to enable me to continue driving trams in a manner safe for my passengers and other road users.

There were tests for my colour recognition and of my peripheral vision. These tests seemed to be adequate and relevant.

But the main test of direct vision was:

1. to read letters on a wall chart
2. which was static
3. at a distance of about 4 metres
4. under artificial (fluorescent) light in the consulting room.

It would seem to me, as a fully qualified traffic engineer and as a tram driver, that the direct vision test is irrelevant in EVERY single aspect. Basically, if anyone gets to drive a tram through a doctor's consulting room then please let me know! But let us take those four aspects one by one.

1. What do I read as I drive my tram? In Bendigo the most exciting reading is the destinations on the buses (and the registration numbers of occasional car drivers who are intent on self destruction). In Ballarat the only thing to read is the notice on a caravan reading "Ballarat's Ice Cream Man". When driving trams we don't read. We SEE. We need cognitive (recognition) skills, not reading skills.
2. If there is anything static in front of my tram then it has broken down. A tram driver has to recognise and identify MOVING objects and to anticipate to where and how fast those objects are moving. We need to be aware of motorists who just don't see us, and of pedestrians who do see us and then panic. These are our real cognitive skills.
3. If I am driving my tram at a pleasant 25kph and I see a body lying on the road just 4 metres from my eyes then it's goodbye Freddie! You and I are normally looking 100m, 200m, 300m ahead trying to anticipate the movements of vehicles coming towards us. Here I am, stationary in the Lakeview Loop at Bendigo, looking at another tram a half-kilometre away at the Gold Memorial, trying to see and anticipate if he/she is going to enter the single track first or should I. But here is my good doctor asking me to read a wall chart at 4 metres! There are a lot of car (and some truck) drivers out there who can't see in focus beyond about 20 metres. No wonder we have so many collisions on the roads. And part of the blame lies in tests like this which just do not examine distance vision.
4. If I am driving my tram under fluorescent lights then I have just entered the depot! I was taught that there are 3 types of cell in the eye that record our vision. They are:
 - A. the daylight cells for direct daylight vision,
 - B. the peripheral cells for peripheral daylight vision,
 - C. the night cells for direct vision in darkness.

Notice that there are no real cells for peripheral night vision, which is one reason why drivers become focused in their headlight beams at night.

The reason that oncoming headlights on high beam can blind you at night is that your eyes are slow in switching from cells C to cells A. Then you see nothing for a moment after that car passes until your eyes change back to cells C. Opposing headlights on high beam in daylight do not blind you because your eyes are operating on cells A. Now, under fluorescent light the eyes are confused. It is neither daylight nor darkness. There is just NO way that an eye test under artificial light is an indicator of eye performance under natural light. I need glasses to read under artificial light. I do not need glasses to read under natural clear light.

Dr. John Ott in a *Readers Digest* states, "The elimination of certain wavelengths by fluorescent lights sets up a distortion of the natural light spectrum, which in turn confuses the brain".

So, where does all that leave us?

I know that the eyesight test which I did is the regular test for truck and bus drivers in Victoria. That does not make it right. The wall chart test is in every single way inappropriate.

I believe that COTMA should take a lead and devise a test that is far more appropriate and therefore would hold more relevant and positive defence for a tram driver in court. Let's face it. If you hit someone you can end up in the courtroom. You need to know that your eyesight test will really support you.

The test MUST be OUTDOORS and MUST involve IDENTIFICATION of MOVING objects (and their COLOURS) at distances of 5 TO 500 metres. Is that car green or blue? Is that tram coming towards us or going away from us? Is that car accelerating or decelerating? Are those pedestrians waiting to cross the road or are they just talking? Tests NEED to be done in SUNSHINE, in GLOOM, and by NIGHT.

I well remember my first car driving licence test at the ripe young age of 18 tender years (many decades ago). The examining constable (a pleasant chap) asked me to read the number plate on that yellow Hillman 50 metres over there in the car park. I answered that it was not a Hillman but a Vauxhall. To that he replied "Excellent" and proceeded to tick the square on his sheet before I had read the number plate. Although the Vauxhall was stationary it was one of many cars in the car park but the only yellow one. In one stroke of genius that constable had tested my eyes for daylight, distance, colour and cognitive ability. He had got it right.

Discussion to paper

All motor vehicle drivers in Australia require medicals depending on age—a similar provision is applicable to New Zealand. Some organisations, eg PTC in Melbourne, are instituting their own tests additional to the standard eyesight chart test to help alleviate the problems suffered by some immigrant staff with inherited problems. Some railway organisations had eyesight testing vans that had coloured light testing equipment plus the Ishihara Test. PTC have contacted optometrists to try to help immigrant workers as well as devise a more suitable test for drivers which involves movement. It was felt that the current tests have some validity but may require review and that these alterations must be incorporated into law. It was felt that COTMA through Bill Kingsley should liaise with the PTU to keep abreast of developments, because of perceived inadequacies in the current tests.

It was interesting to note that all attendees wore glasses!

The Christchurch Tram Transporter

Presenter: John Shanks, supported by Bruce Dale
Session Chair: Rod Atkins
Session Secretary: Peter Kahn

John Shanks presented the Paper prepared by David Hinman. Videotape and an overhead projector presentation covered the actual procedures involved in transporting the City Loop tramcars from the Tramway Historical Society Museum at Ferrymead to the City.

1. Introduction

- 1.1 One of the many problems which needed to be solved during the planning and development of the new Christchurch tramway was a safe and economic method of transporting trams between their "home" at Ferrymead and the new city site. This was a distance of some 10 kms, generally readily accessible by major roads, virtually flat all the way.
- 1.2 While it would ultimately be the responsibility of the tramway operator to arrange transport, Shotover Jet Ltd were not appointed until some three months before opening date, and by that stage the City Council had entered into a contract with the Tramway Historical Society for the provision of the trams for the new tramway. Restoration/refurbishment was well in hand, and it seemed prudent to determine an appropriate means of transport, particularly if it involved construction or acquisition of equipment. It was therefore the City Council which took the initiative and investigated and designed an appropriate transport system, which it passed on to the operator for construction and execution

2. Tram Transport Options

- 2.1 Based on past experience, the "conventional" methods of transportation involved either:
 - (a) The use of a crane or cranes to load on to a road transporter, or

- (b) The use of jacks (such as the THS's own body jacks) to facilitate access by a road transporter.
 - (c) Having a ramp (preferably at both locations) so trams could be driven or winched on to a truck or load loader.
- 2.2 The following principles in regard to transportation were established:
- (a) The method needed to be safe and efficient and cost effective, with possibility of damage to the trams being minimised.
 - (b) The trams should be able to be moved in as complete a condition as possible, noting that from time to time there could be a need to transport them to and from Ferrymead. Removal of trolley poles and other roof features, or trucks, brake rigging, lifeguards, etc was seen as undesirable and noting height restrictions and the presence of power/telephone wires in some streets there was the need to keep the tram as low to the ground as possible.
 - (c) The task should not be too labour intensive—THS resources were fully extended in restoration and other activities, and time and labour could add significantly to the costs of the operation.
- 2.3 The use of cranes was seen as having some major disadvantages, in particular the possibility of damage from strops (based on past experience!), and the perceived difficulty of using cranes in the vicinity of overhead tram wires. The possible need to separately transport bogies was also seen as a disadvantage. Largely out of concerns for potential damage to the vehicles, the THS were very reluctant to allow cranes as part of the transportation process.
- 2.4 The conventional jacking option was seen as quite time consuming, also likely to require removal of bogies (including stripping of brake rigging, etc).
- 2.5 There was no practicable site in the city for a ramp, and if temporary would be time and labour consuming.

3. The Solution for Christchurch

- 3.1 The idea which finally developed into the Christchurch Tram Transporter had begun as an idea scribbled on the back of an envelope while en route to the Rail Federation Conference in Greymouth as long ago as 1991. During an informal discussion on plans for the new tramway, Alan Campbell of the Excursion Train Trust suggested using the containerisation principle where the whole tram could be lifted as a unit using, as suggested at that time, a container base and container jacks or cranes.
- 3.2 A year or so later, with the full tram loop confirmed and construction underway, this concept was investigated by members of the City Council's Tram Project Team who subsequently commissioned the Council's Design Services Unit to develop a practical solution.
- 3.3 Another important element of the final design had, by this time, emerged, and this was the use of building removal technology to assist in the lifting and transporting. Contact was made with a local building removal company which specialised in the lifting and relocation of houses and other buildings. Their equipment included hydraulic lifting jacks which could be interconnected to a portable control panel, allowing each to be lifted or lowered as required. In addition, the company's vehicles also included the ability to lower and raise the truck deck and adjust its length hydraulically (see attached CCC report). The use of this equipment was provided for in the design and the Company was employed to undertake the removal task.
- 3.4 The engineering design solution involved a U-shaped design with provision for four jacks per side and the use of rails and sleepers for the tram to sit on. This latter provision meant the rail was some 250 mm above ground level, thus requiring the construction of a ramp to allow the tram to be driven on and off.

- 3.5 The sides were of a simple truss design and readily allowed the addition of lugs and clips for attaching the jacks.
- 3.6 The ramp design proved to be one of the more difficult parts of the exercise because of the need to:
- (a) Keep it as short as possible, and
 - (b) Allow for the overhang of various parts of the tram, including lifeguards, trip gates, etc.
- 3.7 A short ramp (3 metres) proved sufficient for most vehicles. However, 4-wheel tram No. 11 had, because of the overhang and such features as the lifeguards and steps, required a longer (7.8 metre) ramp to be built. This required the use of a truck mounted crane ('hiab') for lifting and lowering, and the ramp was separately transported on a flat deck truck.
- 3.8 One limiting feature of the transporter as built, was its length. At the time of construction, no serious consideration had been given to the importing of "foreign" trams and so the design was tailored to meet the requirements of the local fleet. Even then, the tolerances were rather fine and small extensions/buffers were added to either end to ensure safety for trams 152 and 178.
- 3.9 The all-up cost of the transporter was \$NZ15,975, and the transport charges of the Building Removal Company for shifting the five trams amounted to \$NZ10,200. An early estimate of transporter building cost had been \$30,000.
- 3.10 In operation, the transporter has proven to be most successful and while to date it has not been necessary to return any trams to Ferrymead, the transporter remains available when occasion demands. When ex-Melbourne W2 tram 244 arrived, consideration was given to extending the base, but on that occasion the use of craneage was found to be both practical and more cost effective. The tram, in fact, arrived lashed to a 40-foot container base, was craned off the ship on to the transporter, and with the clever use of appropriate spreaders and the overhead switched off, was able to be off-loaded in Cathedral Square with only minimum paint and wood bruising.

4. Conclusion

- 4.1 The combination of the containerisation principle with building removal technology is a successful way of shifting trams in situations where it is not practical to have permanent ramps nor desirable to use cranes.
- 4.2 There are some elements of this particular design which, with experience, would perhaps be done differently, including:
- (a) Increasing the length, and
 - (b) Not using conventional rails and sleepers so as to reduce as far as possible the rail height from the ground.
- 4.3 A copy of the plan is attached, and COTMA members are welcome to borrow and adapt the idea for their own use. The Christchurch transporter currently sits at Ferrymead awaiting its next job, with its owners, Christchurch Tramway Ltd, willing to consider any requests for loan or hire.

Dave Hinman
27 August 1996

CHRISTCHURCH TOURIST TRAMWAY METHODS OF TRANSPORTING TRAMS

INTRODUCTION

To transport the trams and trailers from Ferrymead Historic Park to the Tourist Tramway will involve loading the tram onto a transporter, driving into the City Centre and unloading the tram onto the track.

The problems envisaged are:

1. The trams cannot easily be craned onto a transporter since the bogies are not attached rigidly enough to the chassis, and also the overhead power wire will restrict lifting access.
2. Loading the tram by driving up a ramp will entail a very long ramp—about 10 to 16 metres long, that also needs to be transported.
3. The trams need a flat deck of about 12 metres for the longer trams, even then there will be 2 metres overhanging at the rear.

The trams, with dimensions, are detailed in Appendix A (not included).

TRANSPORTERS AVAILABLE

There are several low loading transporters available, including one owned by Works Operations. They vary in length from about 5m up to 8m. None are long enough to transport the two larger trams 152 and 178, although the longer transporters may be able to transport the Dunedin Trams and the trailers.

The next size up in transporters are the rigs used to move houses. These rigs are generally about 1 metre high, but can drop a little lower if the hydraulic suspension is lowered right down. The trailer can be tilted from the horizontal in two planes, thus compensating for road camber and steep hills, although neither should be encountered between Ferrymead and the City Centre. The trailer deck can also be extended from 12m to 18m long long enough for any of the present or proposed trams.

METHODS OF LOADING/UNLOADING

There appear to be two viable methods of loading.

1. Drive or winch trams or trailers up and down a ramp. The practical maximum angle for the ramp is about 1:12, leaving clearance for the brake trip bar. An angle of 1:10 is possible if the trip bar is disconnected.

To climb onto the house transporter trailer 900cm high, the ramp would need to be more than 10m long, and in itself would need transporting, unloading and setting up at each end of the trip. Driving the tram up and down the ramp would also be hazardous should the winch or rope fail, or the tram brakes not hold on the ramp. A runaway tram on city streets could prove a traffic hazard at the very least.

2. The tram could be jacked up to the required height and the trailer manoeuvred underneath. This would enable a broken down and immobile tram to be moved also. Since the tram chassis cannot be jacked without also supporting the bogies, it is considered better to run the tram onto a base that can be lifted complete with the tram.

The jacks used for house lifting each can lift about 4 tonne and lift up to 1.4 metres high, ample height for the transporter. Since the heavier trams weigh about 16 tonnes it would be best to use eight jacks for the lift. It is estimated that the lift would take about one hour for eight jacks lifting one metre. For the lighter trams of 12 or so tonnes weight six jacks could be used, and the lift would take about ¾ hour. Lowering would take about the same time, allowing for some manoeuvring to align the tram with the rails.

The transporter is 3.1 metres wide, and requires a clearance of about 0.2 metres each side to manoeuvre under the tram lifting base.

CHRISTCHURCH TRAM TRANSPORT BASE

TECHNICAL DETAILS

Length of base		7635 mm
Width (includes jack lugs)		3400 mm
Length of ramps	1)	3100 mm
	2)	7800 mm

Designed by: D Clark, City Designs, Christchurch City Council

Constructed by: Southern Cross Engineering Co Ltd

Cost: \$NZ15,975

Road transport and jacking: Laing Properties – Building Relocaters

CHRISTCHURCH CITY COUNCIL

MEMORANDUM

(Mr Clark, Ext 8754)

15 July 1994

From: DESIGN SERVICES MANAGER

To: PROJECTS ENGINEER TRAFFIC
Att: Mike Grady

TRAM TRANSPORT BASE

Thank you for your instructions of 9 June 1994 regarding design and estimate for a Tram Transporting Base.

In addition to the base we have allowed a detachable ramp at a slope of 1 in 12. We have minimised the height of the rails on the base. These will be 250 mm off the ground, and any further lowering would be expensive to achieve.

We have visited Laings Properties, and inspected one of the jacks there. We understand that four jacks would be used each side, with each set hooked up to a common pump system (ie equal force on each jack) with the sets of jacks at 3.600 m c/c to allow for transporter clearance.

The estimated cost for the above base and approach ramp is \$11,600 as follows:

Base and ramps	\$9,580
Contingency say 10%	<u>\$960</u>
Sub Total	\$10,540
Design and supervision say 10% (but charged at hourly rates)	<u>\$1,060</u>
Total	\$11,600

Please note that the above estimate excludes GST and does not include approximately \$800 for the preparation of this report.

We look forward to your further instructions.

M J Stockwell
DESIGN SERVICES MANAGER

DEC:LHT
. DEC

Advice

• Draft copy allowance for pouring steelwork only

Questions/Discussions

One of the factors that emerged was that inexperienced professionals did not have much idea of what was involved in this sort of operation but were not prepared to take advice from the expert amateurs (THS).

John commented in support of the paper that lack of expertise was noted such as with the handling of the tramcar trailers, as having no motors, how would they be unloaded, having been winched on at Ferrymead. He said that jacks were used for lifting and dropping of framework and earthed. The ramp unit was bolted to the transporter and rails and sleepers fitted. Attachments were fitted at the ends of the rails to avoid running off the ends.

After the presentation, questions were called for.

Was the short ramp disposed of? Both ramps have been retained for City Council use and THS does not accept responsibility for the transporting equipment.

How are the trams leased? On an annual basis, arrived at by negotiation, arranged with the City Council. Concerning insurance, an incestuous decision was made requiring the tramcars to be insured for \$1,000,000 each. A condition in the insurance is that in the event of a smash the tramcar is not written off but returned to the THS as is. Being heritage cars, add-ons would be removed and the cars returned to heritage condition.

The workshop then concluded with Rod Atkins thanking John Shanks and Bruce Dale and commented on the experiences with ex-Melbourne cable car movements.

Rottnest Island Railway Line

Presenter: Lindsay Richardson
Session Secretary: Trevor Dennherdt

Rottnest Island is 40 km long and 4.5km wide. It is 20km from Fremantle.

The original line was constructed in 1936 for the Australian Army to service the two guns on Oliver Hill. Two spurs were constructed to service the guns.

In 1960 the railway was used to take ammo down the jetty for removal. The condition of the rail was very poor, being 45lbs and no ballast.

The new line on Rottnest Island was started in 1994 and was opened in July of the same year.

The rails are 60lbs, it is 1067mm wide and 6.4 km long.

Bunning were the main sponsors supplying all the wooden sleepers.

Boral Contractors did all the earthwork.

It used 4000 tons of limestone ballast.

It was built in four months using Westrail staff from the Per Way Institute.

It goes through scrub and small trees and limestone.

Motive power was a shunting tractor (43.5kw power) brought up from Manjimup.

The carriages are 11 metres long. They seat 48 people.

In the near future there will be a pit and enclosed building.

Operation—five services per day, hourly service, seven days a week.

Full time staff are used; there are no volunteers.

Comments/Questions

Rod Atkins: asked about safety. The tour guide rides in the lead car and watches out for traffic. The train has priority over cars.

Ian Cooper: how many tourists? Not many.

Carolyn Dean: what does it cost? \$9.00.

Jim McCrum: asked about concession fares. No concessions.

Len Millar: asked about grades on the line. Slight grade.

Don Smith: is the tractor chain driven and was it covered and did sand get in? The tractor was chain driven and not covered so sand gets on the chain.

ICONS, Trams and Tourism

Presenter: Richard Gilbert
Session Chair: John Radcliffe
Session Secretary: John Radcliffe

Paper prepared by Neville M Gower, member of the Ballarat Tramway Museum and part-time Tourist Officer with Ballarat Tourism Board, and read by Richard Gilbert.

Summary

Some tourist ventures work well as it becomes a local icon, others not so. This paper looks at the reasons behind Icons, how to try to overcome the problems if not one, and to look after the customers.

Have you ever wondered why some groups succeed with the public whilst others battle on. You know, you have an excellent collection, a good operation, but still the crowds don't come. You battle on, hoping for the day when it will all change.

From my experience in Tourism and being a member of several transport societies, it might never happen unless you consider your organisation's position.

Firstly, it's been an automatic success, an ICON, just because your organisation is the major tourism venture in your area. If you don't believe me, examine any tourism brochure on the two Victorian provincial cities of Ballarat and Bendigo. Both have excellent collections, street running (less in the case of Ballarat), but if you read any publication such as Tourism Victoria's Goldfields booklet, it is Bendigo Trust's *Talking Tram* that gets the full-page picture of its trams. This is due to the fact that they are part of the main attraction in Bendigo, i.e. Central Deborah Mine and the Golden Dragon Museum. Thus the Bendigo Trust's trams are the ICON tourists wishing to visit Bendigo remember as the must see and travel on.

In Ballarat's case it is Sovereign Hill, the gold mining township and museum, the new Great Southern Woolshed and the new Conservatory at the Botanical Gardens are used as Ballarat's ICONs and get free publicity in tourist brochures.

Secondly does your organisation's operation, if not an ICON, be part of a tourist destination.

Take for example the paddle steamers on the River Murray. There are several places where they operate, but not so successful as Echuca's former river port. Tourists including myself travel to Echuca as a destination to enjoy the port facilities and older buildings, the pokies across the River, but it always includes a river cruise.

I can recall as a member of AETM St. Kilda in its earlier days of operations, the museum site was in the arse end of the earth, situated off a main road on a poorly maintained road to a place that possesses a pub, a pile of weekenders and a mangrove swamp. That was bad enough, but the museum site was virtually next to evaporative salt-water pans. Nobody except the proverbial

gunzel would venture out there, but once the District Council of Salisbury plus other authorities saw the potential of St Kilda as a destination, i.e. a beach resort for the northern satellite suburbs of Adelaide, the museum's future was enhanced. With a tramway between the Museum and St. Kilda, the AETM was part of this new tourist destination.

Whilst the Kilmore Horse Tram operation could have been considered an ICON in Kilmore and therefore should have prospered especially as the only regular horse tram operation at the time in southern Australia. Kilmore although not much further from Melbourne than the Dandenongs and Puffing Billy, for Melburnians, Kilmore wasn't considered as a destination. Had there been a development of other tourism activities nearby, the Kilmore Horse Tram operation would have been a success like the tourist operation at Victor Harbor South Australia.

Thirdly if your organisation is not an ICON in the town or the city, investigate ways that your organisation can integrate its activities with other tourist operations. For example, Ballarat Vintage Tramway can't beat Sovereign Hill, so its actively participating in the call by Sovereign Hill's Chief Executive to expand its route from the Gardens to Sovereign Hill. In March each year, Ballarat hosts the 10-day Begonia Festival. After being ignored virtually for many years by the Festival organisers, despite it being in the area for 52 weeks of the year, for the past three festivals, the Museum has acted as a public transport system for the Festival by moving the visitors from the parkland car parks to the centre of the activities.

Fourthly, become entrepreneurial with your fleet. Have them available for charter operations not just for enthusiasts, but coach tour operators, be they tourist coaches, day touring, Probus or pensioner groups or day care patients of old people's institutions. Remember, these are often the tourists who utilised the trams as part of their social history. Give them a tour of the depot and a bit of morning or afternoon tea. These groups are often looking for a half or full-day destination and are prepared to pay for such service and add to the coffers in souvenir purchases. You might just be lucky with one of these groups to offer you a worthwhile piece of memorabilia.

Running such operations on a week-day is difficult for organisations that are run by volunteers, however, due to early retirement schemes, rostered days off etc. it is possible to select at least one suitable day per week as required.

Again, what about the odd wedding party now that most weddings are not conducted in churches. Advise your local marriage celebrants, of your availability; its good to network.

Similarly you possess a vintage collection of tramway vehicles, make sure that media or film crews know about your existence so they can be hired for period films. Ballarat Vintage Tramways have been immortalised in the film, *Getting of Wisdom*.

Fifthly, gain added publicity in the media from TV networks and newspapers that cover at least the state, if not Australia, or maybe overseas markets.

Some ideas that you can use to achieve tourist awareness—Bendigo Trust, Ballarat Vintage Tramways and AETM Adelaide have operated frequently their vehicles on a public system. BVT's effort to join Bendigo Trust to operate on the City Circle tourist tramway in Melbourne was fully supported by the Commissioners for the City of Ballarat who provided finance for its design and painting in the City's colours.

The recently completed ex-Melbourne tramcar by SPER and now operating in Christchurch NZ will work in two directions, prompting both Australians and New Zealanders to visit SPER's operations in the Royal National Park. Lets hope when the light rail now being built to Darling Harbour is completed SPER will be able to gain publicity from the operation of an R or an O on the line at its opening. One can only hope!

Additional media publicity can be gained by contacting your local tourism and development department to include your organisation's operation as part of a visiting media visit; or one of those specialist TV programs such as *Great Outdoors* or *Holidays*.

Despite my memos as such as a part time Tourist Officer here in Ballarat the local Tourism Board has yet to realise the unique visual story they have of publicising the new Conservatory in the Botanical Gardens by arriving at the venue in Horse Tram No. 1.

Sixthly, we have COTMA as an umbrella organisation for all tramway groups in Australasia, but as most of these are scattered throughout Australia, there needs to be more liaison with other transport groups. Having recently viewed the *Tracks* brochure by the Council of Historical Tramways and Railways of South Australia, how about looking around yourselves for any likely tourist circuit for tourists interested in transport or industrial archaeology.

I've spoken to Steamrail Ballarat re this idea as a pamphlet for all the Central Highlands Regional Victoria. Within the confines of Ballarat and Bendigo there are three tramway operators, three railway operators, Maryborough railway station precinct and Anderson's Mill at Smeaton to mention a few. Such a brochure not only highlights specialist interest groups in a suitable tour, but it also provides destinations for those people wanting a half or day trip from their home.

Finally, remember that the other matter that can make or break your organisation, its members. Twenty five to thirty years ago when tramway systems closed, a group of enthusiasts, historians, lovers of industrial archaeology banded together to save collections. Because of the 'fire in the belly' of these new operations, the excitement generated by the new volunteer, many of the projects were well supported financially and in numbers riding the trams. Those days are over, so each Board now has to retain its members involved with the public to be tourist friendly. Yes! We are part of the Australian Tourist Industry and as such our members need training in hospitality and tourism.

Every visitor who enters your museum, depot or travels on your tram is in themselves a potential advertising medium for your organisation. Welcome them aboard, Australian or New Zealand style (forget the Americanisms like "*have a nice day!*"), don't let them wander haplessly, or ride a tram without them feeling that you wish them to enjoy the experience.

It is a well worn adage in the tourist industry that a satisfied customer tells three others, but a bad experience is told to ten other potential customers. No tourist organisation can afford bad publicity.

Whilst there are courses of a day's length, such as run by Telstra and Aussie Host, their costs are prohibitive for voluntary organisations. Maybe, the attendance of one or two members to one of these courses can be the catalyst for designing a training program for those members in contact with the public.

Just running a tram up and down a set track these days won't keep the tourists etc. who come to 'ride the rails', we have to follow all the other sections of the Australian Tourist Industry by lifting our game and that can only be done by in-service training of our volunteers. The public now expect this service. Neglecting this aspect of your mission and business plan will see your numbers decrease and a collection lost to other organisations here and around the world which appreciate tourism and heritage.

There are no simple answers or text books to describe how to run a successful tourist operation, but maybe these few comments will help COTMA members re-examine their operations from the viewpoint of tourism and ultimately success financially and maybe even become an ICON.

Discussion/Questions

Ron White: the Glenelg tramway has become an icon in Adelaide, so the AETM has to develop an identifiably separate approach at St. Kilda. It has developed joint promotions with the Mangrove Walk, and has also developed a series of special event days—for example the forthcoming St Peters – Glen Osmond nostalgic day for residents of those suburbs.

David White: the TMSV has developed a "package" using its historic buses encompassing not only a visit to the tramway museum, but also other historic tourist venues around Kilmore. The package is marketed to charter groups, Probus clubs etc. The main advertising is by "word of mouth".

Les Stewart: is the concept of "icon recognition" linked to seven day-a-week operations? Can we break through the barrier of weekend operation to seven day-a-week operation using a mixture of paid and volunteer staff? It is quite unsatisfactory to run an occasional weekends eg the first and third of the month, as potential visitors will not be bothered keeping track of when the museum is open.

David Critchley: have we identified the image we wish to portray? It will create expectations and we must ensure we meet our visitors' expectations. (eg that of a large steam locomotive on the front of the brochure, with the arriving visitor being told "we can't afford to run it very often, and not today").

John Phillips: we have approached tour operators to say, we would be prepared to operate seven days a week, if tour operators are prepared to come, but they have advised that they simply do not have sufficient time after visiting Sovereign Hill for any more than a cup of tea in the Ballarat Gardens before they must return to Melbourne. The Gardens are the icon, but the tram is there.

Bob Merchant: the Japanese tram has attracted a lot of Japanese visitors and "generated its own traffic".

David White: a recent German rail enthusiast was very impressed to be greeted by a local speaking German.

Jim McCrum: the tourist industry always tries to talk to incoming tourists in their own language.

Phil Bertram: we are striving to show our own culture to foreign tourists, not reproduce their culture.

David Critchley: but if initially we start from their culture, we can lead the foreign tourist across to our culture.

Bob Merchant: we have been getting an increasing demand to take wedding pictures on the trams.

Richard Gilbert: an alternative we have found is to provide refreshments to wedding guests on a tram trip while the newly weds are having their photographs taken in the Gardens.

Richard Gilbert: sometimes a simple cheap attraction is memorable to the visitor—for example a hole in a cardboard cut-out of the front of a tram, through which the visitor puts his/her head for a photograph while seemingly running over a body on the track.

Jim McCrum: is there scope for making revenue from copyright of photographs taken of our trams?

Phil Archer: copyright resides with the person commissioning the photograph.

Richard Gilbert: we are selective with advertising—we decline the opportunity to advertise during the Begonia Festival as it would not attract any more visitors and the festival goers will find us when they get there.

Twelfth Report

Thirteenth Australasian Tramway Museums Conference

Hobart Tasmania

4 September 1996

Council of Tramway Museums of Australasia

Chairman – Mr Lindsay Richardson

Executive Officer – Mr Richard Gilbert

Member Organisations as at 1 September 1996

Australian Electric Transport Museum (SA) Inc.
GPO Box 2012, Adelaide, South Australia 5001

Ballarat Tramway Preservation Society
PO Box 632, Ballarat, Victoria 3353

The Bendigo Trust
1 Tramways Avenue, Bendigo, Victoria 3550

Brisbane Tramway Museum Society
PO Box 94, Ferny Hills, Queensland 4055

Christchurch City Council
PO Box 872, Christchurch, New Zealand 8001

Melbourne Tramcar Preservation Association Inc.
PO Box 324, Prahran, Victoria 3181

Museum of Transport and Technology (Inc.)
Great Northern Road, Western Springs, Auckland 2, New Zealand

Perth Electric Tramway Society (Inc.)
PO Box 257, Mount Lawley, Western Australia 6050

Rockhampton City Council
PO Box 243, Rockhampton, Queensland 4700

South Pacific Electric Railway Co-operative Society Ltd
GPO Box 103, Sydney, New South Wales 2001

Steam Tramway and Railway Preservation (Co-op) Society Ltd
PO Box 3179, Parramatta, New South Wales 2124

Tasmanian Transport Museum Society Inc.
GPO Box 867J, Hobart, Tasmania 7001

Tramway Historical Society Incorporated
PO Box 1126, Christchurch, New Zealand

Tramway Museum Society of Victoria Inc.
PO Box 27, Malvern, Victoria 3144

Wellington Tramway Museum Incorporated
PO Box 2612, Wellington New Zealand

Council of Tramway Museums of Australasia Chairman's Report 1996

It is with pleasure that I present to you this report at the 13th Conference of Australasian Tramway Museums.

Previous Meeting

The previous Conference meeting was held in Bendigo, Victoria, on 6 December 1994.

Membership

At the time of the last Conference our membership was 14 organisations which is the same as at today. However, in the intervening period, we suffered the sad loss of the Newcastle Tramway Museum caused by liquidation of the assets of the group, following the appointment of an official receiver to recover debt. On the other hand we welcomed to membership Christchurch Tramway Ltd at the Annual General Meeting held in Melbourne in November 1995.

Office Bearers

At the Conference General Meeting in Bendigo the Chairman, Mr John Radcliffe, stated that after 19 years in the chair he was not seeking re-election. Likewise Mr Bill Kingsley indicated that after 8½ years he was also stepping down from the position of Executive Officer. The meeting elected Lindsay Richardson and Richard Gilbert as Chairman and Executive Officer respectively.

New executive positions of Deputy Chairman and Immediate Past President were adopted by the meeting and Bill Kingsley and John Radcliffe were elected respectively to those positions. The former role of Assistant Executive Officer was re-established and John Lambert was elected to this post.

The positions of Australian and New Zealand Executive members were respectively covered with the election of Howard Clark and re-election of David Hinman. Ms Carolyn Dean was re-elected as Treasurer and Robert Paroissien was again re-elected as Honorary Auditor.

The Operations Group under Chairman Bill Kingsley, and members, Richard Gilbert, Carolyn Dean, Craig Tooke and Andrew Hall have continued to facilitate many of the day-to-day activities in Victoria of COTMA and I extend my thanks for the time given by those members in furthering our objectives.

Meetings

As a follow-up to the election of the new executive team a meeting was held in Melbourne on 20 May 1995, between the Chairman, Deputy Chairman and Executive Officer, to determine the ongoing role and function to be undertaken by the executive team. Satisfactory conclusions were reached on a number of issues and particularly the level of support to be offered by the Deputy Chairman to the Executive Officer in respect of the forthcoming Hobart Conference. Since the advice at last Conference that our Association had achieved incorporated status this caused the need for an Annual General Meeting to be held between Conferences.

Accordingly our first Annual General Meeting was held in Melbourne on Sunday, 26 November 1995, and was attended by 5 executive members and 6 representatives of member Museums.

Legal clarification was sought as to whether we could validly hold future Annual General Meetings outside Victoria and the resulting response was in the affirmative.

Policy Issues

A meeting with Russel Nathan, General Manager of the Tram and Bus Division of the Public Transport Commission, on 24 November 1995, was attended by Bill Kingsley, Richard Gilbert, Carolyn Dean and me to further discuss the present policy of both tramcar and spare parts disposal and the possibility of any beneficial change in the future to the restrictive policy. Whilst it was a most amicable and informative meeting it was clear there was unlikely to be any change in the foreseeable future and which is the position today for other than the Victorian based Museums.

Whilst in Victoria I have had the opportunity to revisit both the Bendigo Trust's Tramway and the Ballarat Tramway Museum. Also whilst in New Zealand in October last I visited the Western Springs Tramway Museum in Auckland and the Tramway Historical Society Museum at Ferrymead in Christchurch. I also had the pleasure of a comprehensive inspection of the facilities and operation of Christchurch Tramway Ltd to which I will refer further in this report.

Notable Events

The launching on 4 February 1995, of the city tramway by new member Christchurch Tramways Ltd in association with Tramway Historical Society for the supply of vintage tramcars was a momentous occasion, not only for the fortunate people of Christchurch but for all people involved in the preservation, restoration and operation of heritage tramways. From progressive reports made so far the operation has been most successful and proven to be a major tourist attraction. On an unhappier note it seems that the financial viability is not up to expectation and I very much hope that this aspect can be satisfactorily addressed.

I referred earlier in this report to the failure of Newcastle Tramway Museum following the appointment of an Official Receiver. Fortunately the rolling stock assets of the Museum were not put under the hammer due to the efforts of the Sydney Tramway Museum and following negotiations by that Museum with the Receiver the whole of the rolling stock inventory was acquired by them to ensure preservation of these vintage tramcars and associated equipment. The Sydney Tramway Museum also indicated that other COTMA member Museums could benefit from the acquisition by negotiation to fulfil their own needs.

The Bendigo and Ballarat Museums have both gained good exposure with the operation in Melbourne on the City Circle route of SW5 class car 808 and W4 class car 671. Both looked resplendent in their respective new liveries.

The Sydney Tramway Museum marked the completion of a new depot building and in addition completed three projects funded by a New South Wales Heritage Grant which included the restoration for Museum display of C class car No. 29.

At St. Kilda the Australian Electric Transport Museum completed major projects in the form of the installation of the ex-Melbourne wheel lathe in a purpose built shed as well as the construction of a large new tram storage shed.

Also in the new shed business is the Wellington Tramway Museum, enclosing a long awaited service pit and the Perth Electric Tramway Society with the completion of a large shed for Spare Parts storage.

At Haddon the Melbourne Tramcar Preservation Association has completed the installation of all overhead wiring, colour light signalling and electrically operated points as a prelude to the commissioning of operations over the full extent of their track. The Tramway Museum Society of Victoria celebrated the restoration of former Hawthorn Tramways Trust car No. 8 by its operation in the City Tram parade on 20 April 1995, marking 70 years of electrification of the Swanston Street routes.

Out at Ferny Grove the Brisbane Tramway Museum Society put a funding grant to very good use in upgrading security through extra fencing and fire detection systems as well as electrification of a further depot road. On a lighter note it was good to see that the many hours of toiling with lawn mowing has been reduced with the acquisition of a large ride on lawn mower.

Acknowledgments

Following the changes to the executive team at the last Conference, Richard Gilbert as Executive Officer has taken up the task with enthusiasm. Apart from his leadership of the Ballarat Tramway Museum his involved interests extend to the railway field in both employment and hobby which puts considerable constraints on his available time. It is indeed fortunate for COTMA that Bill Kingsley, who stepped into the new position of Deputy Chairman, has made himself so readily available to assist Richard in many administrative tasks and including the leading up to this Conference. In addition Bill's continued chairmanship of the Operations group is of great value in furthering COTMA's activities.

Carolyn Dean has continued to efficiently serve as Honorary Treasurer and Mr Robert Paroissien has continued as Honorary Auditor.

I thank the executive team for their input and support over this period in the continued development of Tramway Museums in Australasia.

Lindsay Richardson
Chairman
4 September 1996

Deputy Chairman's Report 1995-96

From Bill Kingsley

This is the first ever Deputy Chairman's Report, simply because this is the first time that COTMA has had a Deputy Chairman.

The strongest message that has come through during the last 2 years is that COTMA does need a Deputy Chairman. Both Lindsay, as Chairman, and Richard, as Executive Officer, have needed the support of a third person and that need will not change. In fact, I am amazed that COTMA functioned for so long without realising its need for a Deputy Chairman. There have been just so many little supporting tasks for me to pick up.

My major task of the last 2 years has been to help in the transition of a new Chairman in Lindsay Richardson and a new Executive Officer in Richard Gilbert, to provide support, guidance and experience to both, and to encourage the continuation of ongoing activities that John Radcliffe and I had in hand.

My specific tasks as Deputy Chairman which will be ongoing are:

1. to deputise for the Chairman when he is unavailable;
2. to represent the Chairman during my travels;
3. to provide support to the Chairman and EO;
4. to assist the Chairman and EO in any negotiations with the PTC and the Ministry of Transport, Victoria; and
5. to chair the Operations Committee.

The Operations Committee includes Richard as EO, Carolyn Dean as Treasurer, Craig Tooke as Electrical Officer, Andrew Hall for PTC liaison, Graham Jordan as Spare Parts Officer, John Phillips for Videos and Publicity, and myself as Chairman. This is the only Committee in COTMA that meets regularly. It provides an absolutely vital role in co-ordinating all the work behind the scenes, and makes policy recommendations to the COTMA Executive. Most of the Committee are shift workers. Getting all together at the same place and time is difficult. But their dedication to COTMA and its goals is huge, and we owe to them all a great thankyou.

In February 1995 it was my great pleasure to represent COTMA in company with Immediate Past Chairman John Radcliffe at the opening celebrations of the Christchurch Tramway. This was a spectacular and thrilling time. It was uplifting to be part of it.

I continue to be the COTMA statistician. All the records of Museum Officers, Experts, Trams, Information etc. are stored via my word processor and continually updated for COTMA reference.

I have also been involved with this Hobart Conference. As a TTMS member it has been a real privilege to put together the Workshops Program and I thank all the presenters for their enthusiastic offers, contributions and support. Along with Richard and Carolyn and wearing my DC COTMA hat, I have been able to lead the Post-Post-Conference Team. We all hope that those participating in these tours will enjoy a great time together.

Finally, thanks to Lindsay and Richard. It has been great working with you. COTMA is a success because of the total involvement of its Museums and their members, and because of the quality of its leadership since our formation in 1975.

Executive Officer's Report 1996

From: Richard Gilbert

This is my first report to a Conference as Executive Officer. I can say that I have already made a report as Executive Officer, that being to the first ever Annual General Meeting of this organisation which was held in November 1995, but this is the first Conference to hear from me in this role.

When I first agreed to this position I thought that it may be too demanding and may take some of my time and interest in the tramway preservation movement away from me. I can however say that the position has added to my time devoted to this most worthwhile of constructive hobbies and I am pleased to be representing the organisation.

I have said to some, it is like stepping out of State politics and into the Federal arena. Bill Kingsley said to me that one of the important things to do was to visit the museums, and he had a concern that I might not be able to get the time and resources to do so. After all, I am not retired, but I have the next best thing available to me, and that is I work for the PTC who offer excellent leave provisions and a 'Free' pass to anywhere in Australia on the railway system whilst on leave.

I can report that since being elected to this position I have visited the following museums: Australian Electric Transport Museum, Brisbane Tramway Museum Society, Sydney Tramway Museum, Tramway Museum Society of Victoria, Tasmanian Transport Museum Society.

During my visit to the Sydney Tramway Museum, which actually amounted to three visits during one week I was present at the 1995 Annual General Meeting. I was also pleased to talk to the members' meeting of the Tasmanian Transport Museum of the role of COTMA and the importance of hosting the Conference in Hobart. I was guest speaker at the members' meeting of the Association of Railway Enthusiasts in Melbourne and presented a slide show and some of the Brag tapes to them.

During the 2 years I have issued 4 Memorandums and one Urgent Bulletin (this dealt with the tram disposal of the former Newcastle tramway museum). At the Annual General Meeting it was agreed that a Memorandum be issued at least every quarter and this has been done to date. The organisation approved the purchase of a Fax machine which has been of immense benefit to me and a photocopier, essential in any office, is planned to be purchased.

Unlike Bill, I have not kept a record of all my phone calls or letters inwards or outwards but suffice to say there is always something to do.

The Operations Group has met 3 times since that last Conference and I have attended 2 such meetings. These are the operational arm of the organisation and keep the day-to-day matters on course.

I have attended 2 meetings at the Victorian Ministry of Transport on the proposed Accreditation Legislation and Warren Doubleday, of the Ballarat Tramway Museum, has been consulting with the Ministry on the drafting of the legislation. Our view is that we want the legislation to be practical and as workable as can be in being passed as a Parliamentary Act and I particularly thank Warren for his interest and for the volume of work he has done in pursuing this matter.

Keith Kings did an excellent job in coordinating the production of the Proceedings of the twelfth Conference held at Bendigo and they were out in good time. In fact my paper on the report of the Driver Training Standards was the one Keith was finally waiting for to get the entire publication under way.

I inspected the Spare Parts Store and our Uniform supply at Bylands in August this year and have agreed with Keith Kings that we need to now sell off the entire stock. None of the museums have responded to offers of the items detailed in the Memorandum and Keith wishes to clear his bus out. It is pointless COTMA holding on to this stock. Arrangements are to be made to sell them at a community market. The Spare Parts Store does not hold a lot of material and after this Conference a decision will be made on a future for this material.

The Annual General Meeting first Annual General Meeting of this organisation was held on

Sunday, 26 November 1995 at the Steamrail Depot, Newport and was well attended by representatives from; Melbourne Tramcar Preservation Society, Sydney Tramway Museum, Tramway Museum Society of Victoria, Brisbane Tramway Museum Society, Bendigo Trust, Perth Electric Tramway Society and Ballarat Tramway Museum.

The Chairman, Deputy Chairman, Executive Officer, Australian Executive Member and Treasurer presided over the meeting that covered quite a deal of business and satisfied the legal requirement of holding an annual meeting as an Association. I wish to thank Tony Sell, our Solicitor, for his work on our legal matters and arrangements for the Annual Meeting and thanks also to Robert Paroissien, our Auditor, for his work assisting us for our Annual Report.

In looking to the future, one of the things that I intend to communicate to museums is the need to pass on information from the Memorandum and other mailings to the general membership. I hope to be able to further raise the profile of COTMA so that it is regarded by member museums as part of their operation and not just more correspondence received for committee dealing. In regard to the Post Conference Tours, I feel that in some museums not all the information was passed on beyond the immediate administration. Obviously this is not deliberate, but there needs to be an awareness that information mailed from COTMA is not just correspondence to a museum, but often requires dissemination to the overall museum membership.

In saying that, I wish to record the support of the member museums during the past 2 years and I am encouraged by the applications from newly established museums to join our organisation.

I thank Carolyn Dean for her work as Treasurer, which is absolutely capably managed, and Bill Kingsley for his constant contact in both ordinary matters of COTMA business and the burgeoning workload of the Conference material. The Chairman, Lindsay Richardson, gives me great encouragement and I thoroughly enjoy his professional and assertive approach to this group. The others on the Executive also are most co-operative and make my transition to the federal sphere rewarding.

David Verrier and his Conference team have worked hard to achieve what is a well-planned and varied conference. I attended 2 meetings of his committee and viewed the Westside Hotel during the Tasmanian Transport Museum annual dinner and we all agreed it was a fine venue for our gathering. I thank the team and David most sincerely for their efforts.

The Council of Tramway Museums of Australasia strives forward every year and I look forward to seeing the Hobart Conference through and the coming along of the Christchurch Conference.

Treasurer's Report

The last financial year saw less expenditure due to primarily printing and stationery being a lot lower due to:

1. less printing; and
2. printing being done free of charge rather than through a commercial source.

There was no sale of uniforms or spare parts.

Membership subscriptions remained about the same, however next year will see a temporary increase due to catch up payments.

The budget prepared below is prepared on the basis that the Post Conference Tour operates on a break-even basis.

For purposes of budgeting an allowance has been made for printing costs that however made, continue to be donated; therefore resulting in a lower cost to this item.

A major capital cost to COTMA was the purchase of a fax machine.

Carolyn Dean
Treasurer

Budget 1996-97

Income	\$
Membership	1600
Sale of videos	200
Interest	<u>400</u>
Total	2200

Expenditure	\$
Affiliated Membership	200
Bank charges	20
Depreciation	172
General expenses	50
Postage and telephone	500
Printing and stationery	<u>800</u>
Total	1742
Excess income over Expenditure	458

Council of Tramway Museums of Australasia Incorporated Financial Statements Year Ended 31 March 1996

Council of Tramway Museums of Australasia Incorporated Balance Sheet as at 31 March 1996

1995

\$

	Council Funds	
8445	Accumulated Fund	9276
<u>1200</u>	Acquisition Fund	<u>1200</u>
<u>\$9645</u>		<u>\$10476</u>

These funds are represented by:

Current Assets

	Australian & New Zealand Banking Group Ltd	
7734	- Cheque Account	2577
-	- Term Deposit	5167
200	Members Subscriptions in Arrears	200
<u>1558</u>	Stock on Hand (at cost)	<u>1558</u>
<u>9492</u>		<u>9502</u>
	Less Current Liabilities	
<u>494</u>	Creditors	<u>30</u>
<u>494</u>		<u>30</u>
8998	Working Capital	9472

Plus Non Current Assets

1800	Electrical Former (at cost)	1800
(1800)	Less Government Grant	<u>1800</u>
		-
1688	Storage Van (at cost)	1688
(1041)	Less Provision for Depreciation	<u>1210</u>
		478

-	Office Equipment (at cost)	529	
-	Less Provision for Depreciation	<u>3</u>	<u>526</u>
<u>816</u>			<u>1004</u>
<u>\$9645</u>			<u>\$10476</u>

**Council of Tramway Museums of Australasia Incorporated
Council Funds for Year Ended 31 March 1996**

1995
\$

Accumulated Fund

8900	Balance brought forward 1 April 1995	8445
-	Plus Surplus for Year	831
<u>455</u>	Less Deficit for Year	<u>-</u>
<u>\$8445</u>	Balance carried forward 31 March 1996	<u>\$9276</u>

Acquisition Fund

1200	Balance brought forward 1 April 1995	1200
-	Plus Members Deposits	<u>-</u>
<u>\$1200</u>	Balance carried forward 31 March 1996	<u>\$1200</u>

**Council of Tramway Museums of Australasia Incorporated
Income and Expenditure Account for Year Ended 31 March 1996**

1995
\$

Income

1140	Members Subscriptions	1280
193	Interest Received	280
11831	Conference Income	-
<u>150</u>	Sale of Videos	<u>-</u>
<u>13314</u>		<u>1560</u>

Less Expenses

118	Affiliated Memberships	96
34	Bank Charges Duties	11
11530	Conference Expenses	170
169	Depreciation	172
50	General Expenses	32
595	Postage and Telephone	204
<u>1273</u>	Printing and Stationery	<u>44</u>
<u>13769</u>		<u>729</u>
<u>(\$455)</u>	Surplus (Deficit) for year	<u>\$831</u>

**Auditor's Report to the Members of Council of Tramway
Museums of Australasia Incorporated**

Scope

We have audited the financial statements of the Council of Tramway Museums of Australasia Incorporated for the financial year ended 31st March, 1996 as set on pages 1 to 3. The Council's Board of Management are responsible for the preparation of the financial statements and the

information they contain. We have conducted an independent audit of these financial statements in order to express an opinion on them to the members of the Council.

Our audit has been conducted in accordance with Australian Auditing Standards to provide reasonable assurance as to whether the financial statements are free of material misstatement. Our procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial statements are presented fairly in accordance with Australian accounting concepts and standards and statutory requirements so as to present a view which is consistent with our understanding of the Council's financial position and the results of its operations.

The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In our opinion, the financial statements present fairly the financial position of the Council at the 31st March, 1996 and the results of its operations for the year then ended in accordance with the Statements of Accounting Concepts and Australian Accounting Standards and comply with the Constitution of the Council.

K.L. Paroissien & Associates
Certified Practising Accountants

R.G. Paroissien
Partner
Melbourne, 24th June 1996

Trolley Wire Report to the 1996 Conference

Since the Conference in Perth in 1994, seven issues of *Trolley Wire* have been produced, with the eighth due from the printers this week.

These seven issues included a number of historical articles. An account of the Adelaide Tramways Band and a history of the Port Adelaide Tramways were provided by Cohn Seymour, the Fassifern to Toronto Tramway was the last of Ken McCarthy's series on Newcastle's steam tram system, and an account of Ballarat's tramways during the war years came from Alan Bradley. This last article received favourable comment from our readers, coming as it did at the time of the Australia Remembers celebrations to mark the end of World War II. It was also pleasing to publish the reports from museums who mounted displays or whose trams took part in the celebrations marking that event.

In 1990, 1992 and 1994, the *Trolley Wire Report to the Conference* detailed the problems which have beset the printing of *Trolley Wire*. Readers will be only too aware that the problems have continued, culminating with what could be regarded as the worst issue yet, the November 1995 issue.

Unfortunately, the November 1995 edition had been enveloped and mailed before being seen by the Editor, who would have rejected the production as too poor to issue. We have rejected at least one badly printed issue in the past.

Dale Budd in Canberra contacted the Editor shortly after receiving his copy of the offending issue. Dale has maintained an interest in the production of *Trolley Wire* since he first set the magazine on the offset printing path back in mid-1964. At that time, Dale convinced his father, who controlled

The Land newspaper, that *Trolley Wire* was ready for producing by the offset method and that he should print *Trolley Wire*, which his father did for the next five years.

Dale requested that the layout sheets and photographs used for the November 1995 issue be sent to him for comparison with the finished product. Luckily, the layout sheets for this issue had been returned to us and they were sent with the photographs to Dale in Canberra. Dale was appalled to find that the finished product did not follow the supplied layout and that photo-cropping instructions were largely ignored. Text corrections, which were clearly indicated, were often not made. In fact, where text had been corrected, an additional error often appeared. Column widths also varied from issue to issue. No wonder the Editor's hair is turning grey!

Dale visited David Meulen and tried to discuss the matters of most concern – the text corrections and photo cropping. David blamed the Editor for various problems until Dale pointed out that he, David Meulen as the printer, was responsible for those production problems, not the Editor.

Dale undertook the task of ensuring the February 1996 edition was closer to what was required and spent time 'watching over David Meulen's shoulder'. Last minute changes were made to ensure that incorrectly cropped photos were replaced and the few text corrections required had been made without creating additional errors. Dale's effort paid off.

Unfortunately, Dale was overseas on business when the May 1996 edition went to press. Although all text corrections appear to have been made, at least one photo credit was not corrected, seven photos were incorrectly cropped and one photo was printed upside down. It was the last straw.

On his return, Dale shopped around Canberra for a printer who could match David Meulen's price (one could not be found in Sydney) and the printer Dale uses for his own business printing requirements submitted an acceptable quote.

The layout sheets and photos for the August 1996 issue were posted off to Dale, who would liaise with his printer on this crucial first printing. However, Australia Post now took a hand in the proceedings. The package arrived damaged with an apologetic note from Australia Post. Dale thinks the reddish liquid which had been spilt over the package was a red wine. The layout sheets were salvageable, but seven photographs were badly damaged and best be replaced. Luckily, the cover photographs had been sent to Canberra earlier to enable the printer to make a start on the colour work. This was fortunate as the cover photograph, a particularly sharp one taken by a Japanese visitor to St Kilda, could not have been replaced.

The Editor would like to thank those photographers who supplied replacement photographs at such short notice. Their effort is very much appreciated. The completed issue is due out this week, a little late but not by much considering the time taken to replace photos and for the printer to familiarise himself with the requirements of *Trolley Wire*.

From here we surely can only go forward, and the report to the next Conference should be much more positive.

Following the Bendigo Conference in 1994, there was a Victorian-based push for *Trolley Wire* to change to an A4 page size and Bill Scott went to the trouble to prepare material to support this idea. In fact, this change had been discussed by the SPER publishing team some years ago but would require a printer better than the one we could afford for this to be successful using the present methods of production. It certainly will not occur until we have better control of the final page layout.

The move to taking full control of the page layout is proceeding. The new computer is already in service and the Editor has been donated a highly regarded desktop publishing software package valued at over \$1000, to be delivered by the software publishers in October this year. There will be a learning curve in the new program's use, of course, but by mid-1997 we should be on the way to taking full control of the magazine's layout.

Perhaps it should be said that modern word processing packages can be used for desktop publishing—COTMA Conference Proceedings are produced this way—but are not able to match all the functions required for magazine work which are included in dedicated desktop publishing software.

Before closing, I would like to take this opportunity to thank the museum correspondents and photographers for the time and effort they put in to provide news and photos of their museum activities for *Trolley Wire*.

Bob Merchant
Editor, *Trolley Wire*

Tramway Topics

Report to the COTMA Conference, Hobart 1996

This report summarises the main issues since the last COTMA Conference for New Zealand's journal *Tramway Topics*. This is published by the Wellington Tramway Museum (WTM) on behalf of its peer organizations the Tramway Historical Society (THS) of Christchurch and the Western Springs Tramway (WST) of Auckland as well as for WTM itself.

Two major changes were made at the start of 1994; the move to A4 size in place of the A5 which had been the format since 1966; and 4 issues per year in place of the 6 per year which had, with few exceptions, been maintained since 1963.

These changes were made for several inter-linked reasons:

1. To reduce costs; the goal was the same amount of content over a year, at less cost through fewer post-outs.
2. To allow bigger, more interesting illustrations.
3. To give better shelf-appeal to make it more marketable for casual sales.

Results after 10 issues in this new format are mixed:

1. Post-out costs are less, and printing costs have been good because of the very competitive supply situation in Wellington. Formatting costs, though, have increased. They may well have done so under the old format. We have yet to get the efficiencies from direct formatting with Pagemaker software, and still use a bureau for this work.
2. This has been achieved; the results are good.
3. No marketing of casual sales has been done, and in fact the number of each issue has very slowly declined. It is possible that the black and white format may not make *Tramway Topics* attractive for retailers.

It would be good to have some robust critical appraisals from fellow COTMA colleague organisations. We like to think that *Tramway Topics* reflects the distinctively New Zealand nature of our part of the tramway world: does it?

I see a number of policy issues which may be common to most if not all other journals within the COTMA grouping. They are listed in no particular order, for discussion to help the continuous improvement of *Tramway Topics* as New Zealand's main tramway interest journal.

1. Production technology—how can costs continue to be driven down by fullest use of desktop publishing systems?
2. Commercial *Vintage Trolley* is now established in New Zealand (in Christchurch). It may well spawn others. Our magazine reflects its "enthusiast" origins; should we seek to be accepted as a key journal for this commercial sector, or should we keep an "amateur" focus? And, if we do, will this really attract new readers?
3. There are probably about 20 or so journals and newsletters being published within the COTMA fraternity. It would be useful to have a complete list.
4. Are journals like *Tramway Topics* core business to a museum or should they be strictly self-sustaining financially? Their "newsletter" function is certainly a core museum activity. While a strong case can be made for the journal's historical recording role to be as central to the

museum function as car preservation itself, this may not fit the business approach which our museums have to follow in the 1990s.

5. We are probably the best journal to be the documentary record of the Wellington trolley bus system – the last one in Australasia, and now part of the international Stagecoach Company. Do other COTMA museums see this as a *Tramway Topics* role, or do they see it as not a valid tramway museum journal subject?

In 1997 *Tramway Topics* will enter its 35th year. It has lasted longer than many of the cars, routes and even whole systems it records. Like most aspects of New Zealand life in recent years, *Tramway Topics* underwent critical scrutiny in 1996. The concept of seeking regular NZ pages in one of the Australian journals in its place was considered. The outcome was support for the style and perspective of *Tramway Topics* and for its personal orientation and New Zealand focus.

With the small size of the New Zealand market, that puts a real focus on production efficiency and on marketing. WTM is considering appointing a *Tramway Topics* business manager to drive this; a move which the Editor strongly supports, so that his efforts can focus on content improvement.

Alan Smith
Hon Editor

International Association of Transport Museums Report to 13th Biennial Australasian Tramway Museums Conference

Report of 12th Conference

A report of the last COTMA Conference, held in Bendigo in December 1994, along with details of contemporary museum developments and details of changes in Office-bearers, was published in IATM Newsletter 15 (extract overleaf).

IATM Conferences

The 1995 IATM Conference was held in Norway, and the 1996 Conference is being held in Speyer, Germany, from 22-27 September. The location of the 1997 and 1998 Conferences will be determined at Speyer

Australian Bid for 1998 Conference

While in Britain in July 1996, I met with the IATM Chairman (Dr Michael Fopp, RAF Museum, Hendon), the Secretary (Stan Goron, Postal Museum, London) and Councillor Dr Andrew Scott (National Rail Museum, York), to discuss a proposal that the 1998 IATM Conference be held in Adelaide from October 5-9 1998, being the week preceding the holding of the International Council of Museums (ICOM) Conference in Melbourne. (ICOM is the world co-ordinating body for museums.)

An organising committee, which I chair, has been established under the auspices of the History Trust of SA, with other participants including the National Motor Museum (Birdwood), South Australian Maritime Museum, Port Dock Station Railway Museum, SA Aviation Museum, Australian Electric Transport Museum (St Kilda) and the Investigator Science Centre.

The program for the week-long conference could involve a reception on the Sunday evening, formal conference sessions on the Monday and Tuesday, museum visits on the Wednesday (Port Adelaide, St Kilda?) and Thursday (Birdwood, Goolwa, Victor Harbor?), and final sessions and AGM on the Friday. The History Trust of SA is preparing a video for screening at the Speyer Conference in support of the formal application which has already been lodged.

If the bid is successful, members of CIMUSET (the museum grouping for science and technology museums) will also be invited to participate.

John C Radcliffe
IATM COTMA Delegate

Extract from IATM Newsletter 15.

Council of Tramway Museums of Australasia (COTMA)

COTMA held its twelfth Biennial Australasian Tramway Museum Conference in Bendigo, Victoria, from 2-6 December 1994 with field visits over the following four days. The Conference was hosted by the Bendigo Trust which operates Bendigo's Tourist Tramway which has a fleet of 31 cars. The Conference was attended by 86 delegates and much of the discussion was around changes in responsibilities for operational safety. The Principal guest speaker was Geoffrey Claydon from the Tramway Museum Society, Crich, Derbyshire, UK.

The Tramway Historical Society, Christchurch, New Zealand has provided the five trams being used on the new Christchurch City Tramway, which opened on 4 February 1995. The \$7 million investment by the Christchurch City Council comprises a 2.5 km heritage tramway loop around the central business district of the city. The operating fleet consists of two electric trams and a trailer from Christchurch and one electric tram and trailer from Dunedin. These vehicles have been leased from the Society for five years.

The Sydney Tramway Museum which has a collection of over 40 cars and operates its own line, has received a grant of \$226,340 from the New South Wales Railway Heritage Grants Scheme. This is for the restoration of C type Sydney tram No. 29 of 1898, the provision of a fire sprinkler system in display and restoration buildings and the erection of a 540 sq m operations building for tram cars.

The Victorian State Government Minister of Transport has announced that a major Tramway Museum is to be established in the Hawthorn Tram Depot of the Public Transport Corporation of Victoria. The heritage listed building has not operated as a running depot for many years but has been used to store old vehicles, including some of those retained as part of the PTC Heritage Fleet of 26 cars. This fleet also includes vehicles on exchange from the Tramway Museum Society of Victoria and the Bendigo Trust. The PTC has also placed about 150 of its older (1935-56) trams on long term storage following delivery of new cars. In future the State Government has ordered that no cars or parts are to be scrapped, sold, or made available to museums outside Victoria in view of public concern over the previous export of surplus Melbourne cars.

After having been Chairman of COTMA since its foundation in 1975, Dr John Radcliffe (Australian Electric Transport Museum, Adelaide) has stepped down. The new Chairman is Mr Lindsay Richardson (Perth Electric Tramway Society). John Radcliffe will continue to serve as IATM delegate in his capacity as Immediate Past President. Mr Bill Kingsley, who had been Executive Officer for two terms encompassing 11 years also retired. The incoming COTMA Executive Officer is Mr Richard Gilbert (Ballarat Tramway Preservation Society) who can be contacted at his new address, 5 Felicia Street, Mordialloc, Vic, 3195, Australia.

Richard Gilbert also produces the COTMA Memorandum (or Newsletter) which appears to be issued twice a year - the October edition (No. 77) has just been received. From this we learn that the COTMA AGM was due to be held on 26 November 1995 in Melbourne and that the 1996 COTMA Conference will be held at the Tasmanian Transport Museum, Hobart, from 31 August - 4 September—with a two-day post conference tour.

For future information please contact the Executive Officer, Richard Gilbert, (address above) or telephone +(61) (0) 3 9580 8270.

Council of Tramway Museums of Australasia Inc.

Minutes of Twelfth Conference General Meeting

Wednesday, 4 September 1996

The meeting was held at the Westside Hotel, Hobart

Present

Lindsay Richardson (Chairman) Bill Kingsley (Deputy Chairman) Richard Gilbert (Executive Officer) Howard Clarke (Australian Executive Member) Carolyn Dean (Treasurer)

Representatives

John Phillips (Ballarat Tramway Museum) Barry Ollerenshaw (Wellington Tramway Museum) John Shanks (Tramway Historical Society) Ron White (Australian Electric Transport Museum) Robert Pearce (Perth Electric Tramway Society) Peter Hyde (Brisbane Tramway Museum Society) Robert Merchant (Sydney Tramway Museum) Rod Atkins (Tramway Museum Society of Victoria) Dennis Bell (Bendigo Trust) Greg Johnston (Tasmanian Transport Museum) Craig Tooke (Melbourne Tramcar Preservation Association) John Radcliffe (Immediate Past Chairman)

The meeting was opened by the Chairman at 9.40 a.m. The Chairman welcomed all those present.

Apologies

Nil

The Minutes of the 11th Conference General Meeting were presented.

Moved Phillips/Shanks "That the Minutes be taken as read". Carried

Business Arising

Barry Ollerenshaw pointed out that Trevor Burling was the Wellington Tramway Museum Representative at the meeting and not Les Stewart.

John Shanks gave an update of Lisbon Spares and equipment. John felt that K10 Controllers couldn't be obtained from Lisbon. He reported that THS is about to make their own and THS would take any orders from other museums for the construction of same.

Bill Kingsley reported on his task of seeking information from our Legal Officer information re the liability of COTMA interstate. Mr. Sell, the Legal Officer, advised the legal cover would be the responsibility of the host museum. Mr. Sell feels that COTMA itself cannot organise Post Conference Tours interstate.

John Radcliffe asked if the Mutual Recognition Laws question had been put forward. The Chairman said he didn't feel it applied yet.

Patterns

The report from Ric Francis on patterns was read out.

Reciprocal Visits

Bill Kingsley reported on 'Cards of Introduction'. Craig Tooke further reported that reciprocal visits with the Tramway Historical Society, Crich, England had been followed through. He reported that MOTAT was the only COTMA member group that did not want to be part of this arrangement.

Instruction Manuals

John Radcliffe asked the latest position on this project. The Chairman stated that the requirements laid down in the Minutes of the 11th Conference still stand.

Overseas Museums: Special Category of Membership

This matter has to still be followed up.

Communication with the PTC

Bill Kingsley and John Radcliffe spoke on the matter and their discussion with Minister Brown. It was agreed that the matter lay dormant on the table as we watch how matters evolve.

Rolling Stock Maintenance Standards/Operational Safety Committee

It was agreed that these committees be combined. Moved Tooke/Bell. Carried.

John Radcliffe advised that the setting up of the committee should not be delayed whilst we are waiting for the Victorian Rail Safety Accreditation Act to become law. He stated we should act quickly on this matter.

There was further discussion on setting up the Rolling Stock Maintenance Standards Committee and who should be on the committee. The Sydney Tramway Museum view was that the matter should be given to Howard Clarke and the Executive to develop the proposal and recommend who should be on it. The Sydney Tramway Museum felt that we couldn't really appoint someone on the spot.

Dennis Bell nominated John Bond, Depot Manager, Bendigo to be on the committee.

The Executive asked Les Stewart to also be on the committee and the meeting agreed with this.

The Executive asked that Bob Merchant pass onto Howard Clarke the discussion on the situation and there was a need to address the situation and establish a finalised committee.

Museums Association: Special Interest Group

Warren Doubleday reported on the category of Special Interest Group in their Membership. Discussion ensued on whether we had enough member interest and size to be an actual Special Interest Group under their definition. John Radcliffe undertook to follow the matter up with the Museums Association of Australia on behalf of the Executive.

Moved Ollerenshaw/Merchant "That this be done". Carried.

Video Tapes

A general report was presented from John Phillips on the production and sale of video tapes. A mailout will be sent to all attendees at this Conference advising that a tape of the Hobart Conference is for sale.

Memorandum

Discussion arose over the dissemination of news from the COTMA Memorandum. It was felt that in many cases the information stayed within the management of the respective museums. John Radcliffe suggested the Chairman write to the President/Chairman of each museum with the aim of boosting the use of the Memorandum and distributing the relative news from it.

List of Museum "Experts"

Craig Tooke suggested that all of the five questionnaire forms seeking information from museums experts etc. be distributed to all museums. Agreed by the meeting.

Prizes and Awards

Ron White suggested the matter not be proceeded with. Les Stewart spoke on the awards system in New Zealand. It was agreed that the issue of prizes be put on hold and not proceeded with.

Association of Railway Museums

John Radcliffe reported that the group is located in United States of America and does not relate to our group. Agreed the matter is not worth proceeding with. There have been better results in continuing with the informal relationship as held with Crich.

Reports

Reports were presented from The Chairman, Deputy Chairman, Executive Officer, Trolley Wire, Tramway Topics, International Association of Transport Museums, and Treasurer.

Regarding the report from the Deputy Chairman, Bill Kingsley wished it recorded that Andrew Hall has provided input to the Operations Committee and we thank him for that.

Moved Tooke/White that reports be received and adopted. Carried.

Notice of Motion to Amend the Constitution

Rod Atkins asked a question on time of notice given to delegates. The Chairman ruled that it had been mailed in advance of the Conference General Meeting and the need to amend the Constitution had not been existent at the time of the last Conference.

Moved Merchant/Phillips "That we proceed with the debate on the motion and we accept the proposal without the due notice". Carried.

Moved Pearce/Tooke "that we accept the amendment to the Constitution". Carried

Moved Ollerenshaw/Pearce "that the 3 positions on the Executive, being Deputy Chairman, Australian Executive Member, New Zealand Executive Member be adopted". Carried.

Elections

Chairman: Lindsay Richardson (PETS) was nominated White/Tooke and elected unopposed with acclamation.

Deputy Chairman: Bill Kingsley (TTMS) was nominated Pearce/Atkins and elected unopposed with acclamation.

Executive Officer: Richard Gilbert (BTM) was nominated Phillips/Bell and elected unopposed with acclamation.

Treasurer: Carolyn Dean (BTM) was nominated Tooke/Hyde and elected unopposed as Treasurer with acclamation.

Assistant Executive Officer: John Lambert (BTMS) was nominated Phillips/Tooke and elected unopposed with acclamation.

Australian Executive Member: Howard Clarke (SPER) was nominated Merchant/Atkins and elected unopposed with acclamation.

New Zealand Executive Member: David Hinman (THS) was nominated Shaw/Ollerenshaw and elected unopposed with acclamation.

Non Executive Elections and Appointments

IATM Representative: John Radcliffe (AETM) was nominated Pearce/Bell and elected unopposed with acclamation.

Application for New Memberships

LAUNCESTON TRAMWAY MUSEUM INC.: The Executive Officer introduced an application by the Launceston Tramway Museum Inc. for Membership. Craig Tooke asked a question as to whether they were an incorporated group and further do they have a clause regarding distribution of assets. Philip Archer (LTM) spoke to the matter and seemed to satisfy the question. David Verrier spoke on the Incorporations Act and said assets are protected to go to non-profit organisations.

Moved Tooke/Ollerenshaw "that the Launceston Tramway Museum Inc. be admitted to membership subject to the Executive being satisfied to the disposal of assets question". Carried.

PORTLAND CABLE TRAMS INC: The Executive Officer introduced an application for Affiliate Membership by the Portland Cable Trams Inc. There was general discussion on the correctness of the name of the group. The basis of this being that the tramway was not really a cable tramway. Keith Kings spoke on the correct use of language. He said 'cable tram described the vehicle and cable tramway described the tramway'. Keith put a view that it is not a cable tramway and it is in fact a cable tram.

Bill Kingsley spoke on the question. He felt it was a name to promote their business and we shouldn't demand they change their name as it could create some ill will.

Craig Tooke asked re the ownership of the vehicles. Bill Kingsley answered that the Power House and Car museum owns them. Cable Trams Inc. separated from the car museum when the tram based interest group wanted to run the vehicles.

Bill Kingsley recommended the group be admitted as an Affiliate. Moved Bell/Tooke they be an Affiliate member. Carried. After the motion was put and carried Peter Hyde suggested and Bill Kingsley agreed to talk to them on the correctness of their name.

ROCKHAMPTON CITY COUNCIL: The Executive Officer introduced an application by the Rockhampton City Council for membership. Robert Pearce asked a question concerning ownership and disposal of the tram and assets. David Neish (Rockhampton Council) replied the Council own the tram. Robert Pearce suggested that an assurance be obtained stating that disposal would be only to a tramway body. The Chairman responded by quoting the Constitution and suggested they be Affiliated.

Peter Hyde felt the Rockhampton Council met all the requirements for being a member.

Dennis O'Hoy (BT) stated that a precedent was set in Bendigo as the Bendigo Trust owns the trams and the City Council owns the mine and depot.

Warren Doubleday asked how matters stand in relation to the city tramway in Christchurch. There was not a clear answer given. Robert Pearce stated our Constitution sets out the group must own a tram not depots, overhead etc.

Howard Clarke said that we seem to be worrying about disposal of the tram. He suggested we get the Rockhampton City Council to write to us advising the tram will be disposed to another tramway museum should the need for disposal arise.

Moved Merchant/Pearce "that the Rockhampton City Council be admitted as a full Member subject to receiving an undertaking on disposal of the tram". Carried.

General Business

Uniform store: Moved Atkins/Merchant "that steps be taken to dispose of uniforms and stores at Bylands and that disposal of the 'B' van be undertaken. Carried.

Discussion arose over the subject of Rail Safety Accreditation. The Chairman advised that Craig Tooke is Chairman of the Accreditation Legislation area.

Constitution: "Robert Pearce asked a question on what constitutes a tram. Does a replica running on rubber wheels conform? The Executive will have a review and will seek advice from others on this.

Internet: Peter Hyde asked is the Executive going to place COTMA on the Internet. The Executive Officer is to progress this and work on placing us on the Internet.

Productions: Bob Merchant reported on the calendar produced with the assistance of SPER. The museum has supplied photos for the 1997 production and has details of all the COTMA member museums on the back page. In fact as Bob says a virtual COTMA Calendar.

25 year book: Craig Tooke suggested a commemorative book be produced for the year 2000 or at least a special issue of Trolley Wire magazine. The Chairman suggested that each museum could prepare 4 face pages of text and photos of their past 25 years.

The Operations Committee will take up this matter.

David Neish asked about the location for the year 2002 Conference and he offered Rockhampton as a venue. The Chairman said the normal protocol was that the venue would be determined at the Christchurch Conference.

Year 2001, exchange of trams: Peter Kahn (SPER) suggested that there be an exchange of trams for Federation celebrations.

Closure

The Chairman, Lindsay Richardson, spoke on the success of this Conference at Hobart. He thanked the Tasmanian Transport Museum and the committee headed by David Verrier for their

enthusiastic and obviously successful work. He wished everyone well for the future and a safe return to their home.

The Chairman closed the meeting at 2 p.m.

Council of Tramway Museums of Australasia Inc.
5 Felecia Street, Mordialloc, Vic 3195 29 July 1996

NOTICE OF MOTION TO AMEND THE CONSTITUTION (RULES)

At the Conference General Meeting in Hobart on 4 September 1996 it is intended to move a motion to amend the Rules.

The present Rules nominate an Executive comprising "the Chairman, Executive Officer, Treasurer, and as many other members as shall be fixed by the Conference General Meeting". The original thought behind this wording was to keep the Executive both simple yet expandable. The problem is that to maintain an expanded Executive requires a motion at each CGM, and this is an encumbrance.

The positions of Australian Executive Member and of New Zealand Executive Member have existed for some many years now and will continue to be an important aspect of the Executive's operation. Both represent the Member Museums within their respective countries and both positions can be stepping stones to the position of Chairman.

At the Bendigo Conference a new position of Deputy Chairman was added. During the 2 years since then that position has been a vital part of the continued smooth running of COTMA. In retrospect we can wonder why there has not always been such a position, and how COTMA continued to function properly if the Chairman was unavailable.

The addition of these three positions as permanent positions on the Executive is recommended.

It is therefore intended to add to paragraphs 4 (6), 5 (1) and 6 (1) as per the words in CAPITALS as follows:

4 (6)

The Chairman shall preside at a General Meeting; in his or her absence THE DEPUTY CHAIRMAN SHALL PRESIDE; IN THE ABSENCE OF BOTH THE CHAIRMAN AND THE DEPUTY CHAIRMAN the Representatives then present shall elect a Representative or alternate Representative to act as Chairman of the Meeting.

5 (1)

The control and management of the affairs of the Council shall be vested in an Executive Committee which shall be comprised of the Chairman, DEPUTY CHAIRMAN, Executive Officer, Treasurer, AUSTRALIAN EXECUTIVE MEMBER, NEW ZEALAND EXECUTIVE MEMBER, and as many other members as shall be fixed by the Conference General Meeting;

6 (1)

The members of the Executive Committee shall be elected at each Conference General Meeting, in the following order:

- (a) Chairman, who shall also be Chairman of the Council;
- (b) DEPUTY CHAIRMAN, WHO SHALL ALSO BE DEPUTY CHAIRMAN OF THE COUNCIL;
- (c) (Previously b) Executive Officer, who shall also be Executive Officer of the Council;
- (d) (Previously c) Treasurer, who shall also be Treasurer of the Council;
- (e) AUSTRALIAN EXECUTIVE MEMBER;
- (f) NEW ZEALAND EXECUTIVE MEMBER;

(g) (Previously d) As many members as from time to time determined by the Conference General Meeting

and shall hold office from the time of their election until the conclusion of the elections at the succeeding Conference General Meeting.

Richard Gilbert
Executive Officer

Council of Tramway Museums of Australasia Inc. Minutes of Second Annual General Meeting

Wednesday, 4 September 1996

The meeting was held at the Westside Hotel, Hobart

Present

Lindsay Richardson (Chairman) Bill Kingsley (Deputy Executive Officer) Richard Gilbert (Executive Officer) Howard Clarke (Australian Executive Member) Carolyn Dean (Treasurer)

Representatives

John Phillips (Ballarat Tramway Museum) Barry Ollerenshaw (Wellington Tramway Museum) John Shanks (Tramway Historical Society) Ron White (Australian Electric Transport Museum) Robert Pearce (Perth Electric Tramway Society) Peter Hyde (Brisbane Tramway Museum Society) Robert Merchant (Sydney Tramway Museum) Rod Atkins (Tramway Museum Society of Victoria) Dennis Bell (Bendigo Trust) Greg Johnston (Tasmanian Transport Museum) Craig Tooke (Melbourne Tramcar Preservation Association) John Radcliffe (Immediate Past Chairman)

The meeting was opened by the Chairman at 9.20 a.m. The Chair welcomed all those present

Apologies

Nil

The Minutes of the First Annual General Meeting were tabled.

Amendments

After 'Apologies' there be inserted "The Chairman presented a review of activities since the General Meeting in Bendigo with particular reference to the failure of the Newcastle Tramway museum and the actions by SPER in purchasing the rolling stock from the liquidator".

Page 3 Paragraph 3 "tramway" should be replaced with "transport". Moved Merchant/Tooke "That the Minutes with amendments be accepted". Carried.

Business Arising from the Minutes

Pro Bono, to-be followed up with Phil A'vard by the Executive Officer.

Treasurer's Report

The Treasurer presented the Annual Financial Statement.

Moved Ollerenshaw/Bell "That the Financial Statement be accepted".

Carried

There being no further business the chairman closed the meeting at 9.35am

COTMA CONFERENCE - HOBART 1996

**Some notes on Hobart tram and trolley bus routes to be traversed
on 31 August and 1 September 1996**

The City Depots and the Railway Trams

This afternoon we commence our journey, of retracing some of Hobart's tram and trolley bus routes, at the site of the original depot of the Hobart Electric Tramway Co in Lower Macquarie Street.

On the left, next to the Red Lion Tavern, was situated the original depot of the HET Co, constructed in 1892 - 93. Trams exited onto Macquarie Street to run to both the railway station (the start of the Cascades line) and to the GPO (the start of the Sandy Bay and New Town lines).

Back behind us is the HMT office built in 1914, which formed the Macquarie Street frontage of the new municipal tram depot. Trams exited to Campbell Street and then onto Macquarie Street via a single line.

We will now follow the single track of the railway service down Macquarie Street and left into Park Street. On the left hand side of the bus, at the corner of Collins and Park Street (now occupied by the Transport Commission office) is the site of the 1944 trolley bus garage (which accommodated 40 buses). Vehicles entered the garage from Collins Street and exited onto Park Street.

A short distance along Park Street we come across Mistral Place, a street which was constructed after the trams ceased operating. The railway tram terminus was very close to the intersection of Mistral Place and Park Street.

West Hobart trams terminated in Liverpool Street on the roundabout side of the Tiger Line terminal. The North Hobart line ran straight up Park Street (another roadway now unrecognisable from the tramway days) and a short-lived (and little used) stub went along the Domain Road to terminate opposite the railway station. It was all single track in this area, but the double track on the Liverpool Street line commenced opposite the TigerLine terminal.

We will now retrace our path (after negotiating the roundabout) back along Park Street and will drive past the site of the "new" trolley bus depot (now the Grand Chancellor Hotel). The new depot, opened in October 1954, could house 48 trolleys, 20 diesel and petrol buses. It was entered off Macquarie Street, opposite Campbell Street and buses exited onto Davey Street.

Trolleys ran along Davey Street to either Elizabeth Street or Argyle Street to access their departure points. In the original system, prior to the introduction of one-way streets, all the trolleys terminated opposite the Customs House on the edge of Constitution Dock, after traversing Macquarie, Dunn and Davey Streets.

Sandy Bay Trams and Trolley Buses

The one-way street system prevents us from travelling up Macquarie Street from the depot, but we will travel along part of Davey Street which was traversed by trolley buses in later years when taking up running from the depot to Sandy Bay. Their city terminus was in Elizabeth Street at the side of Franklin Square.

Departing from Franklin Square we rejoin Macquarie Street at the GPO and then follow the route of both the trams and the trolley buses to Sandy Bay. Soon after leaving the City the line ran alongside St David's Park and at the Sandy Bay end of the park was the scene of two accidents when double deckers derailed and overturned.

There were two prominent short workings on the Sandy Bay line. The first, at Lord Street, is encountered not long after leaving the shopping centre. The second, at Derwentwater Avenue, was at the end of the double track. The line had been duplicated from Nelson Road to Derwentwater Ave in 1933, although the destination blinds described the short working as Lambert Avenue, one block away.

Before we arrive at Derwentwater Ave, we will pass the entrance to the Wrest Point Casino. This road was built on the site of the Queenborough trolley bus turning circle. After passing the Casino, we have a short section of single track on the river side of the road before encountering a long loop from Harvey Lane to Mawhera Avenue. There was only one other loop on the line—from Nutgrove Ave to Heathom Ave.

The line was extended short distances on three occasions between 1913 and 1915. The original 1893 terminus was at Nutgrove Ave. It was then extended 25 chains to Beach Rd in 1913; four car lengths down Beach Rd in 1914 and 225 feet in 1915. The tram service was cut back to Maning Ave in June 1952 to enable the road to be rebuilt. Trolley buses took over the full service in December 1952. Beach Road was a busy place in summers past, both in the days of trams and trolley buses. The tram terminus was double tracked and the trolley bus turning circle was also “double tracked”. Petrol buses replaced the trolleys in October 1968.

Proctors Road Trams and Dynnyrne Trolley Buses

We will now retrace our path to Nelson Road and cut “across country” to the Proctors Road line in the suburb of Dynnyrne. First on the scene is the terminus of the Dynnyrne trolley bus which opened in June 1945, replacing the tram. Up the street, at the intersection of View St and Proctors Rd, was located the second terminus of the Proctors Rd tram. The line had been extended 8 chains from Lord St to View St in June 1934. Trams started operating to Lord St in October 1922. Travelling towards Macquarie St, there were two loops: in King St at Pillinger St and in Antill St.

Unfortunately the Proctors Road line was an economic failure due to an inadequate passenger catchment area, thus leading to the first experiments, in 1924, of one-man trams. Trolley buses which took over in 1945, were also under-utilised and were replaced by petrol buses in November 1968. The route has since been absorbed into other services. At the intersection of Antill Street and Macquarie Street we will turn left and travel up to Cascades, Strickland Avenue and Huon Road.

Cascades Trams and Strickland Avenue and Huon Road Trolleys

The Cascades line was the third of the original 1893 HET services. The double track installed later by the HMT terminated at Antill Street. Loops were at Gore Street and at Darcy Street. Trams still ran to Darcy Street up to May 1946, even though the Cascades trams had been replaced by trolley buses in 1942.

Just before the road curves around past “Woodstock”, the line terminated at the Cascades tea rooms. This suburb was devastated on 7 February 1967 when bush fires ravaged Southern Tasmania. Trolley bus 234 was destroyed whilst operating to Cascades and the entire overhead to Strickland Avenue was destroyed in the same fire which gutted the historic Cascades Brewery. Trolley bus services were restored three months later on 1 May. The trolley bus turning circle at the Brewery had been installed in 1942 and the line was extended one mile up Strickland Ave in October 1948. Settlement in this valley has remained sparse.

We will now drive back down Strickland Avenue and Cascades Road to Darcy Street, turn right into Darcy Street and proceed to the terminus of the Huon Road trolley bus. A single trolley bus replaced a petrol bus on 24 October 1935, Hobart’s first trolley bus service. Cascades, Strickland Avenue and Huon Road trolley buses were replaced by petrol buses in November 1968, the last service being operated to Huon Road on 24 November by bus No. 235, now preserved by the TTMS at Glenorchy.

West Hobart Trams and Trolley Buses

Our journey back to the City via Macquarie Street will take us past Molle Street, the location of a short-lived link in both tram and trolley bus services to West Hobart.

On 1 January 1951, the day after the North Hobart line closed, West Hobart trams departed from the GPO via Macquarie and Molle Streets, entering the City via Liverpool and Park Streets. This was stage one of a grand plan for a City Circle tram service. However, the plan was unpopular with passengers and the Molle St service was withdrawn in April 1952. Trams reverted to two-way operation in Liverpool St. Molle Street was again used for electric transport, this time in 1958 - 59 for trolley buses, following the closure of the West Hobart tram line.

Our journey takes us past Franklin Square and the GPO and through the intersection of Macquarie and Argyle Streets, an overhead jungle of tram and trolley bus wires. It was not a "grand union", but trolleys could make three left turns (one involving "double track"), one right turn, two straight through movements in two streets, as well as the tram overhead for two tracks.

We turn left from Macquarie Street into Argyle Street, past the terminus of the New Town and Cornelian Bay trolley and along to Liverpool St to the West Hobart line. Trams and trolley buses both travelled along Liverpool Street to West Hobart and we traverse, at Elizabeth Street, Hobart's only right angle tramway crossing. Just to the right hand side of bus, as we cross Elizabeth Street, was the scene of Hobart's worst tram accident, the collision of 131 and 137 on 29 April 1960.

The double track ended just before Barrack Street with single track plus two long loops on the rest of the line to West Hobart. The next intersection, Liverpool and Molle, could be difficult to traverse in wet weather, especially if a heavily laden tram had to stop on the 1 in 10 grade.

Around the corner at Molle and Goulburn Streets there was a long section of double track up to The Y. This unusual place name, which resulted in several local businesses using the description, "The Y" was derived from the original 1914 track layout. This required a tram travelling from the City to West Hobart to run up Goulburn Street (one side of the Y) to a dead end (the tail of the Y), change ends and run along the other side of the Y to Cavell Street. The service to the City did the reverse. In 1931 the Council rebuilt the intersection and eliminated the shunt. Double deckers were prohibited from operating beyond the Y.

We continue along Cavell Street, turn left into Hill Street, then into Lansdowne Crescent, the location of the second long loop and the Warwick Street short working. Returning to Hill Street we pass the scene of another of Hobart's fatal tram accidents. When single trucker 55 derailed in October 1941 near Hamilton Street, it jumped the kerb and the conductor was thrown off the tram and killed.

The first West Hobart terminus (1914) was at the intersection of Hill and Arthur Streets. The line was extended to Newdegate Street in 1916. Trams terminated outside the shops whilst the trolley buses, which replaced the trams in February 1958, turned at the little park on the right just before the Newdegate Street intersection.

Federal Street, Augusta Road and Lenah Valley Trams

We will now take another short cut; this time down Newdegate Street to join the New Town line in Elizabeth Street at North Hobart. Soon after entering Elizabeth Street we arrive at the North Hobart Post Office, the site of a crossover for the Federal St spur. Work commenced in early 1924 for a 5-chain line down Federal St to Thomas St for trams to layover for the football matches at the nearby North Hobart ground.

Continuing on to the Augusta Road junction, we leave the main line and join the Lenah Valley branch opened in September 1922. There was a double track turnout at this junction, the only one in Hobart outside the City area, and a short stub to Clare Street for the sprinkler car to stand and fill up with water.

One can easily follow the Lenah Valley line because of the staging of construction of the concrete roadway. The shape of the loops can be seen near Calvary Hospital, at Waverley Avenue and at Giblin Street, the latter being a well used short working. The line closed in August 1957 and was replaced with diesel buses.

New Town, Moonah, Derwent Park, Springfield and Glenorchy Trams

Upon returning to New Town Road we travel out to the Maypole at Risdon Road, another short working. Up the hill, past Bromby Street, where No.50 hit No. 8 in 1937 (the system's first fatality) and onto Moonah. Just before Florence Street, on the right hand side of the bus, was the site of the Moonah tram depot, opened in November 1924. A few hundred metres along the Main Road, also on the right hand side, is Cooley's Hotel, the location of the original 1893 tram terminus. This Hotel featured prominently in the transport world in the 19th century and earlier this century as it was a suburban horse bus terminus, stagecoach terminus, tram terminus and the terminus of Hobart's first motor bus service, from Moonah to Glenorchy.

The Moonah line was extended in 1916 to a point between Albert Road and Hopkins Street and then to Windsor Street, Glenorchy in March 1923. However, before we reach Windsor Street, the bus will arrive at another junction, variously known as Derwent Park, Derwent Park Road (on the right) or Springfield Avenue (on the left). Metro's Springfield depot and head office dominate the intersection as we see it today.

The 30-chain Springfield branch was opened in May 1928 and the operation of the branch was subsidized by the owners of the housing estate for the next 20 years. Springfield was closed on 21 October 1960, the last tram service in Hobart. For many years the crossover on the Main Road, just prior to the junction, was used for short working trams in peak periods.

Travelling north along the Main Road we pass Windsor Street, the end of the double track (the line was duplicated to Windsor Street in 1944) and the scene of major activity on Hobart Show days when most trams terminated at this point. After much agitation by the Glenorchy Council, and opposition from the State Railways, the HMT agreed to extend the line from Windsor Street to Tolosa Street in April 1931. The single track was off-centre to facilitate the eventual duplication of the line, an event which never occurred.

The 1931 terminus on the Main Road created considerable traffic congestion and the track was extended 3 chains around the corner into Tolosa Street in December 1937, now the site of the Glenorchy bus station. The Glenorchy line closed in August 1960.

Cornelian Bay and New Town Station Trolley Buses and North Hobart Trams

The next section of our journey takes us to New Town and Cornelian Bay and we will proceed to retrace these two trolley bus routes as well as link up with the North Hobart tram line at Ryde Street.

A significant change in the roadscape around Cornelian Bay prevents us from travelling along the exact route taken by the trolley bus. Our trip starts at the beach terminus, opened in 1937, and we traverse Queen's Walk past the Cemetery gates. A diversion via Risdon Road is now necessary but we will see the other end of Queen's Walk from Risdon Road before the bus passes under the railway line. After ascending part of the Park Street hill we turn left into Bay Road and run down to the site of the New Town Station, the terminus of Hobart's second trolley bus route, opened in October 1937. One half of the New Town Station building now forms a significant feature of the TTMS museum at Glenorchy.

Between 1937 and 1955, outbound trolley buses operated via Harbroe Avenue, a very narrow thoroughfare. The route was replaced in the latter year by the more direct Park Street route. We now follow the combined Cornelian Bay/New Town Station route back to Ryde Street and Newport Street in North Hobart. These two streets intersected with Letitia Street and were the centre of much transport activity on school days and football days. Ryde Street was the terminus of the North Hobart tram and was adjacent to the Hobart High School and the North Hobart football ground.

Ryde Street was also the site of a trolley bus turning circle (although replaced in 1960 by the Newport St circle) and a layover line was later available for special football trolleys and school trolleys. The trolley bus service to Cornelian Bay ceased in March 1959 and that to New Town Station in August 1968.

Trams started operating to North Hobart in 1916, the same day as the extension to West Hobart. Both lines were through routed until December 1950, although to varying degrees over the years, with cutbacks occurring in the service to North Hobart as a result of passenger leakage to the through trolley bus service to New Town.

Following the tram line into the City there were loops at Alberly Avenue near the Campbell Street school and at Patrick Street. As we approach the central area we find the one-way street system prevents the bus from following the original trolley bus route into the city.

As a compromise between the original trolley bus route which turned right into Brisbane Street, and the tram route which turned left into Brisbane St and then into Park St, we will follow the later trolley bus route straight down Campbell Street. A right turn will take us up Collins Street (which was once used by West Hobart trolley buses operating in the opposite direction) and into the City

Bus Station at the GPO, the site of Hobart's most important tram terminus. The area remains the focus of city public transport, one hundred and three years after the commencement of the electric tram service.

Our arrival at the GPO concludes this tour of the most significant parts of Hobart's tram and trolley bus system.

Prepared by Ian G Cooper for the Tasmanian Transport Museum on the occasion of the COTMA Conference.

**Council of Tramway Museums of Australasia Inc.
First Annual General Meeting**

26 November 1995

The meeting was held at the Steamrail Depot, Newport, on Sunday, 26th November 1995 commencing at 10.30 a.m.

Present

Lindsay Richardson (Chairman) Bill Kingsley (Deputy Chairman) Richard Gilbert (Executive Officer) Howard Clarke (Australian Executive Member) Carolyn Dean (Treasurer)

Representatives

John Phillips (Ballarat Tramway Museum) Craig Tooke (Melbourne. Tramcar Preservation Association) Robert Merchant (Sydney Tramway Museum) Andrew Hall (Tramway Museum Society of Victoria) Peter Hyde (Brisbane Tramway Museum Society) Keith Kings (Bendigo Trust) Lindsay Richardson (Perth Electric Tramway Society)

Observers

Nil

Meeting was opened by the Chairman at 10.30 a.m. The Chairman welcomed everybody present.

Apologies

John Radcliffe; Moved Gilbert/Dean that apologies be accepted. Carried.

The Executive Officer spoke on some issues, these being a report on the issuing of the Memorandum, the proposed purchase of a fax machine and photocopier, his visits to various museums and the proposed Conference to be held in Hobart.

The Executive Officer presented a letter from The Tramway Historical Society, Christchurch offering to host the 1998 Conference in June of that year.

Moved Phillips/Hyde that the offer be accepted and approved.

Carried

Memorandum

It was agreed that the COTMA Memorandum be issued at least quarterly.

The Treasurer presented her report and Financial Statement, Moved Phillips/Hyde that the report be accepted. Carried.

General Business

Accreditation legislation in Victoria: Bill Kingsley asked how it stood currently. Richard Gilbert answered stating that legislation had not been passed in Parliament and that the only accreditation standards being applied were for those operating on PTC property.

Operational Safety Committee

Howard Clarke advised he needed a letter to SPER setting out what the Committee actually is, what the requirements of the Committee are and to nominate someone from SPER to head it.

Rolling Stock Maintenance Standards Committee

This Committee was set up from the Bendigo Conference; Craig Tooke asked through Keith Kings for Bendigo to Nominate their person on this.

Committee members so far are; Craig Tooke (MTPA) Warren Doubleday (BTM) Murray Sanders (THS) (SPER) (BT)

The meeting felt there was a need to link the Operational Safety Committee with the Rolling Stock Maintenance Standards Committee.

Associations Act

Bill Kingsley spoke about the Victorian Associations Act regarding our legal liability position in other states (or countries). The meeting felt we were over reading the intentions of the Act. We are not normally operating the business of our Association outside the state. Howard Clarke said the only area he could see anything relating to Bill's comment was that if we have a Conference interstate, or overseas, is that the state hosting the Conference under some legislation should have us insured.

Bill Kingsley said he would follow through with our Solicitor, Tony Sell, for clarification.

TMSV

Andrew Hall spoke on a number of issues:

He spoke of lack of receipt of Memorandums; Executive Committee answered by correctly establishing the address Andrew would prefer to have them mailed to.

Andrew raised the concern of the TMSV in the considered lack of protocol by the Executive Officer in contacting the TMSV for both the Executive Officer and Chairman of COTMA and TMSV Board Member, Keith Kings, to visit the site at Bylands to view COTMA uniforms in store.

Executive Committee felt this was taken out of proportion when compared with the facts of the planned visit, but to appease the situation the Executive Officer will write to the Secretary of the TMSV when he wishes to visit the COTMA Uniform Store.

Diesel fuel account: Andrew raised a complaint that the diesel fuel account for the fuel used on the bus supplied for the Bendigo Conference had not been paid. The Treasurer asked for an Account, which was presented and she paid 'on the spot'.

Conference Video Tapes

John Phillips reported on the fact that not many tapes have been ordered by museums, or individuals, of the Bendigo Conference. Agreed that the offer be made more prominent in the Memorandum, and further agreed that an advertising Flier be prepared for the next Memorandum.

By gauging the replies John can determine if in fact one is needed to be produced of the Hobart Conference.

It was suggested that the price of a video tape could be included in the Conference Registration Fee.

Instructional Manuals

Little had come of this and it was agreed to delete this item from being pursued.

Bendigo Conference Proceedings

Keith Kings reported that all the information had been gathered and production was under way. For the future it would be a great help if all Reports at Conference were presented on disc for reproduction.

Pro Bono

To be further followed up with Phil A'vard.

International Association of Tramway Museums

The interesting parts of these newsletters should be reproduced in the Memorandum. Agreed.

South Melbourne Depot Trackwork

Agreed by all that the condition of the trackwork is such that it is not worth saving.

Executive Meeting

The Executive recommended to the meeting that the Christchurch Tramway Limited be admitted to COTMA Membership.

Moved Merchant/Phillips that the Christchurch Tramway Limited be admitted to COTMA Membership. Carried.

Newcastle Tramway Museum

Howard Clarke reported on the position of the Newcastle Tramway Museum. He reported on the disposal of the assets and the winding up of the group.

The meeting agreed that Jack Nyman needs to forward COTMA a note advising that the Museum is in fact wound up.

The group would then be formally deleted as a COTMA Member at the next AGM if they are wound up.

There being no further business the Chairman closed the meeting at 1.05 p.m. and the group were then invited to the Steam Packet Hotel for luncheon.

AUSTRALIAN AND NEW ZEALAND TRAMWAYS CONFERENCE.

CONFERENCE ROOM 4TH FLOOR, BANK OF NEW SOUTH WALES CHAMBERS,
7 WYNARD STREET, SYDNEY, MARCH 1934.

The undermentioned undertakings accepted the invitation to the Conference held as abovementioned and were represented by the following:-

ADELAIDE:

Sir William Goodman, Chief Engineer and General Manager,
Municipal Tramways Trust.
Mr. E. H. Bakewell, Chairman, Municipal Tramways Trust.
Mr. J. R. Cain, Member, " " "
Mr. J. L. Leal, " " "
Mr. E. G. Whittle, " " "
Mr. F. L. Parsons, " " "
Mr. R. O. Pitcher, " " "
Mr. C. R. Moyes, Secretary and Assistant Manager, "
Mr. C. F. Hursthouse, Rolling Stock Superintendent, "
Mr. E. W. McEgan, Chief Clerk, "

AUCKLAND:

Mr. G. Grey Campbell, Member, Auckland Transport Board.

BRISBANE:

Mr. G. R. Steer, General Manager, Tramways Department.
Col. J. M. Grant, Chief Assistant Engineer, Tramways Department.

DUNEDIN:

Mr. W. H. Mackenzie, Manager, Dunedin City Corporation Tramways.

HOBART:

Colonel S. H. Hancox, Manager and Engineer, Hobart Municipal Tramways.

MELBOURNE:

Mr. Alex. Cameron, Chairman, Melbourne and Metropolitan Tramways Board.
Mr. G. Membrey, Member, " " "
Mr. J. V. O'Connor, Member, " " "
Mr. T. P. Strickland, Chief Engineer, " " "
Mr. A. D. Murdoch, Manager, " " "
Mr. H. Stephenson, Assistant Rolling Stock Superintendent, "
Mr. G. G. Jobbins, Engineer and Manager, State Electricity Commission, Victoria.

- 2 -

SYDNEY:

Mr. S. A. Maddocks, Commissioner for Road Transport and Tramways.
Mr. C. N. Neale, Chief Traffic Manager.
Mr. H. B. Edwards, Engineer for Workshops and Rolling Stock.
Mr. C. W. Keele, Engineer for Way and Works.
Mr. P. J. Timmony, Assistant Chief Traffic Manager.
Mr. T. Ashcroft, Mains Superintendent.
Mr. D. H. McBurney, Rolling Stock Superintendent.
Mr. C. H. Parkes, Accountant.
Mr. G. Sargeant, Manager, Departmental Omnibus Services.
Mr. W. S. Corner, Assistant Chief Electrical Engineer, New South Wales Railways.
Mr. M. J. Lacey, Engineer of Tests, New South Wales Railways.
Mr. F. A. Maclean, Designing Engineer, Electrical Branch, New South Wales Railways

and other officers of the Department of Road Transport and Tramways as opportunities offered.

The Use of the Trolley Slide by the Melbourne and
Metropolitan Tramways Board.

(T. P. Strickland, Melbourne.)

The sliding shoe form of current collector has been tried at various times over a period of years and eventually the conclusion arrived at was that the behaviour of the shoe was not satisfactory when the shoes were operated amongst trolley wheels.

Late in 1932 it was decided to equip all cars, 15 in number, on an isolated part of the system at Footscray with a set of fittings called the "slide" supplied by the Economy Devices Co. of Chicago. The shoe has a renewable wearing piece or insert of chilled cast iron and makes a greater longitudinal contact with the wire than previous types. Between March and December, 1933, these cars had run 313,332 miles using 129 inserts, giving an average life of approximately 2,500 miles.

LUBRICATION.

From our previous experience it was found that it is essential to lubricate the trolley wire and probably the best method is to use a graphite stick held in an apparatus, called by the above Company a "slicker". This device is attached to a trolley pole of a car not carrying passengers and is travelled over the lines when the lubrication is required.

This form of lubrication will deposit a film over the wire providing the stick is made to a certain formula and is suitable for the climatic conditions at the time. The free movement of the stick in the slicker and the application tension is also very important. It is found that the graphite lubricant is most satisfactorily retained on straight track as might be expected.

We notice that the surface is not so good on worn wire as on new or full section wire owing to its failure to retain the lubricant so effectively, no doubt on account of the increased

contact pressure per unit area. The trolley pole pressure is 10 lbs.

Another rather extraordinary feature observed is that 3 or 4 portions of a bay of wire here and there fail to retain the grease film and consequently begin to wear while the wire on either side is well lubricated, although all received the same treatment. We have not yet found a satisfactory explanation of this difficulty.

As the wire at curves suffers most wear by the wheels or shoes, we find a corresponding effect on the life of the grease and it is the state of lubrication on curves that determines the frequency of application of the slicker.

As there is a large number of curves on the section under review we find it necessary to carry out this operation once each week.

WEAR.

We find that on the straight or large radius curves the wire takes a very smooth and burnished surface and very little wear takes place. With a line of this nature and free of small curves it is considered that the periods between lubrication could be extended.

The life of the renewable inserts of the slide averages 2,500 car miles, the inserts cost 1/5d. each.

Trolley wheels on the system now fitted with shoes averaged 28,600 miles per wheel, the total cost of wheel, bush and returning being 17/-.

Trolley wheels on the rest of the system run 17,000 car miles at a cost of 17/- each, including part cost of the bush, one bush doing two wheels.

OVERHEAD FITTINGS.

The sections of trolley wire in use here are No. 3/0 B.S. and 4/0 S.W.G. non-fouling and grooved respectively. The slide

passes under ears and fittings in a most satisfactory manner with a minimum of arcing.

The operation over frogs has presented some difficulty up to date. We use on trolley wheel lines a frog with a gap of about 13" in the centre between tongues, which gave unsatisfactory results with the slides.

We find that the type of frog giving the most reliable results is one having the centre ends of the tongues close together, and these tongues deep enough to prevent the flanges of the slide from touching the frog pan except for the period of transition from one tongue to the other. It is necessary also in setting poles on cars, to see that the slide is vertical and in line with the longitudinal axis of the car.

SUMMARY.

It should be borne in mind that this trial is being carried out on a system equipped with one-man light cars and the result that would be obtained with the heavier bogie cars is, perhaps, a matter for conjecture at this stage, especially as we have a large and a small section trolley wire to deal with in other parts of the system.

The conclusion arrived at to date is that for long lines of tracks free of small curves the use of the slides would show a considerable reduction in trolley wire wear, with the elimination of wearing strips or envelopes and consequent saving, at least, where small cars are used.

As previously mentioned a number of small radius curves do appear to reduce the efficient use of the slide by the effect on the lubrication.

Use of the Fischer Bow.

Fischer bows are fitted on 3 cars operating in Holden Street, Fitzroy, on a shuttle service. These have been in service for 3 years. The plates average 22,000 miles each and

the cost is £2.2.6 each. These plates are greased daily, and cleaned down thoroughly once a week and filled with new grease. The lubricant used is a mixture of yellow grease, tallow and engine oil.

Comparison of Costs.

Trolley wheels on Footsray system	7d. per 1000 miles
Shoes "	7d. " " "
Fischer bow plates "	23d. " " "
Trolley wheels on rest of system	12d. " " "

The above figures are for wheel, shoe and plate replacements only.

Chairman: I think it was laid down that copies of all papers should be distributed beforehand in order to give the Delegates an opportunity of preparing matter for concise discussion on the various points. However, we would rather have a valuable discussion of this kind without the notes beforehand than not have the discussion at all.

Mr. Strickland: It is submitted for information rather than discussion.

Chairman: We would, I think, show very little appreciation of such a valuable paper if it were not discussed and I am sure there are quite a number who would be very glad to take part in the discussion, and all members of the Conference, particularly lay members like myself, would be very glad to hear what the engineers in other systems have to say in regard to this important subject.

Mr. Hursthouse: In Adelaide we have tried out slides or shoes to some little extent, and from reports it appears they are being tried out in Christchurch where, they say, results are encouraging. Auckland reports them to be unsatisfactory. Melbourne has them on trial and Sydney reports having tried them some years back without success. In Adelaide they were tried some 14 years ago, but without lubrication and were found unsatisfactory.

We have at Port Adelaide an isolated system operating small four-wheeled cars, and on this we have tried out trolley shoes of two or three different kinds. One design of our own manufacture was an oval wheel with a centre set eccentric and a hardened steel inset. This was reversible in that it could be taken out and turned upside down and a second steel inset used. All three classes we tried with lubrication, such lubrication being limited to hand dressing the wire. Our experience has not been altogether successful, but it is yet rather early to condemn it indefinitely. We are running it on round wire which has been in service for a number of years with enveloping fittings, which are definitely against satisfactory operation.

The slides or shoes give a very fine smooth finish to the undersection of the wire but tend to bruise the same after leaving the envelope fittings.

Mr. Strickland mentions the absence of noise when using shoes, and I am certain anyone who has watched their operation would be surprised at the definite reduction in noise, showing how much trolley wheels and poles contribute to the general noise of the tramcar. Personally I think the success of the shoes will only be made provided the trolley wire has a smooth under run and lubrication is definite. I do not think there is much limitation to the size of car that can be run with shoes.

Possibly pantographs or Fischer bows would be an improvement on the shoes, and where heavy weight cars collecting say 600 amperes from the line are run the pantograph seems preferable to any intermediate collecting device.

Col. Hancock: We have been rather interested in the question of shoes because we are using the Fischer bows, and we have a proposal to run a trolley bus using the same wire. I think

it would be almost impracticable to use wheels on the same wire as the Fischer plate so we have considered the question of using the shoe. We have not tried any of them but we have had a sample of the Ohio Brass Company's swivel head shoe, which is now used extensively on American trolley buses. I am very much surprised at Mr. Strickland's figures in not getting a higher mileage out of the Fischer plates. Our average for the last year for the whole of our cars was about 45,000 miles per plate. Mr. Hursthouse mentioned about the corrugations on the wires. We use Brown and Sharp 2.0 non-fouling section. We did have a good deal of trouble. We were not using the Fischer plates but the old aluminium bows and suffered from bad corrugations under the suspension points. We got rid of it pretty well altogether by making the suspension more flexible. That seems to be a very important point with any sliding contact of that sort - to get it quite flexible. One of the most important points of all is the class of lubricants used. The great difficulty we had was the lime base in ordinary grease. The Fischer plate has the two slots in which the grease is put. The aluminium bows had the same. After rain they were liable to have a groove cut across the aluminium. This was due to the grease being washed off the wire by the rain. Then we used different lubricants. One of the best we found was the Keystone, and we have since tried one somewhat similar to that which Mr. Strickland mentioned. This has a good deal of tallow in it and will stand the water. Then we used Vacuum cup grease, and now we are using Wakefield grease with satisfactory results.

Mr. Strickland: I think one of the explanations of the shorter life we get with the Fischer plate is that we have to run it over a section in which trolley wheels are running. It is run on the shuttle service, but the car has to run to a shed over a mile and a half or more away, and the consequence of running to and from this shed is that some of the damage is done which leads to reduced life. Also other cars are liable to run over the section on which this runs.

Chairman: On that question of the trackless trolley, I might state that we had advice only the other day from Chicago, to the effect that there is almost a general replacement of wheels by shoes in the American system, and we were advised that in only three systems in America are wheels being used. They fitted their overhead, in the first place, for the wheels and they have now realised the advantage of the shoe to such a great extent that they are proposing to adopt it.

Col. Hancock: There is one thing I might have said and that is in considering the life or comparing the Fischer plate with the wheel, the saving in wear on the trolley wire should be taken into consideration. We found in the last figure just before we came away that our wear on trolley wire is steadily decreasing - an outcome of the better lubricant, I take it.

Mr. Ashcroft: I was very pleased to hear Mr. Strickland's remarks, but I would like to have heard a little more from the overhead wiring point of view. Mr. Strickland dealt mostly with the shoe from a rolling stock point of view. I noted with pleasure that the test on shoes that Mr. Strickland made was conducted where wheels were not used. I think that is very necessary. In all information we have received in connection with tests of shoes it has been emphasized that the shoes must be tested independently from wheel operation.

Mr. Hursthouse mentioned that at the recent rolling stock conference it was stated that Sydney had tried out these shoes without success. I did not have anything to do with that test, but I should say that that test was no good. It was conducted on lines on which wheels were mostly used and therefore was not a proper test. One of the major troubles was, I believe, the shoes would not reverse, but I understand that trouble has been overcome in the modern designs. Personally, I think that to give a shoe a proper test we should do it the same way as Mr. Strickland - on a line that is entirely free from all wheel operations. I should suggest a test in Sydney on the Ashfield - Burwood - Mortlake line, which is entirely isolated from the other lines and where we have about 23 cars to the 15 mentioned on the test line in Melbourne.

Mr. Strickland referred to the life of the shoe. That is a point I do not know much about.

The lubrication of the wire is a very important subject. Most people say that if you use a trolley shoe you "have to" lubricate it. I think "have to" should be changed to "able to", because lubrication of trolley wires in my opinion is a very valuable preventative to wear. Where trolley wire can be successfully lubricated and you can maintain that burnishing of the contact area you have out of the troubles from wear. Unfortunately, you cannot do much good with lubrication of the wire where trolley wheels are used. I do not think it is worth while, but we have not quite given up hope. We have experimented a little, but not in a proper way. We just got some sticks of graphite and rubbed the mixture on the wire by hand.

Mr. Strickland's next remarks concern the pole pressure. I think from the overhead wiring point of view that is a point that should be considered. We had in our tramways to increase our pressure from 18 to 25 lbs. and we still find that we get excessive arcing between the wheel and the wire. I do not think if we went up to 30 lbs. we would cut out that arcing. But the shoe can be operated at 10 lbs. pressure, and with the added advantages of lubrication saves an enormous amount of wear on the wire and costs of renewals.

Mr. Strickland mentioned the 4" grooved wire. Like Adelaide we use round. I think we are wrong and that grooved wire should be used in Sydney. Mr. Hancock referred to corrugation. We have had quite a lot of corrugations in the trolley wire and suspension fittings on the Wynyard to North Sydney line, that is, wheel operation. But I feel certain Mr. Hancock's explanation of heavy suspension fittings being the cause is correct. In my opinion the bulk of the corrugations in Sydney is due to these heavy fittings with large porcelain insulators at suspension points. We have removed these from some suspension points and found they weighed 9 lbs. We are replacing them by a spring lock hanger weighing about 2 lbs. and feel confident this change will remove the trouble.

We have in Sydney been using for many years a 4" trolley wheel which, in my opinion, is not satisfactory for the work. I would say that where the average schedule speed does not exceed 9 miles per hour, trolley wheels are quite satisfactory. We proved that by certain outlying sections of our lines where traffic is light. But when we come into the first and second

sections, particularly where we do get a chance to speed and we are drawing very heavy currents, our trolley wire renewals are enormous. Prior to 1931, before we had such high speed, we renewed about 27 miles of trolley wire per annum. Our total track mileage is about 300 miles. In 1932, we found we were having a lot of trouble and decided to clean up, and we renewed 80 miles at a cost of nearly £16,000 or £198 per mile. There were 618 renewals, and the average length was 684 feet. We were rather fortunate that time that the price of copper was somewhere about £28 or £30 a ton. To-day it is about £35, but had we had to renew that wire some other time at £60 or £70 a ton, the cost of course would have been a much greater burden. That was 1932. In 1933, we expected that after erecting that 80 miles we would have an easy time. We thought we had got rid of most of the trouble and taken out most of the original wire and that we were going to be quite alright. It might be mentioned that we had original wire that had been up 15 or 20 years. From 1910 to 1917 we put in a lot of new lines, and after the usual 20 years' life we found that extensive renewals were necessary. Also many miles of trolley wire which was purchased abroad was failing, and we did not like to leave it up in important sections, so we took it out. We were surprised last year to find that trolley renewals had not decreased to any great extent. The renewals of this last year totalled about 60 miles, and we were compelled to look for the cause. So far as I can see, under the existing traffic conditions, the 4" wheels are the main cause. These 4" wheels cause excessive arcing between the trolley wheels and the trolley wire, and in my opinion the excessive arcing is more conducive to trolley wire wear than the actual mechanical wear. I would like to refer to an article I have just perused by Mr. Nelson M. Powell, the General Manager of Boston, Revere Beach and Lynn Railroad, Boston, Massachusetts, on page 280 of the September, 1933, issue of the "Transit Journal", showing that wheel operation gave 7 or 8 times the amount of wear compared with the shoe. I would like also to refer to a rather interesting experiment which was conducted for the Hanshin Electric Railway Company, Japan, by the University of that city. It took a comparison between trolley wheels and pantographs. Without going into any details, it showed the wear due to the pantograph was 1.4 times greater than the trolley wheel. There is not very much detail in the article but I think it is well worth further thought. Other people besides those in Japan and America have studied this matter closely and we should, I think, benefit by their experience and tests.

Referring again to Sydney, the arcing that we are getting with the pitting and burning of the wire should, I think, be commercialised in some way. What does it cost us? If we allow the arcing with pitting and burning of the wire to go on we can put the cost down to at least £5,000 per annum and I would say that is a low estimate. With good current collecting apparatus we should reduce our trolley wire renewals to 25 miles per annum or less. We are now renewing about 50 miles. That would be a saving of 25 miles at say £200 per mile, which is about £5,000 and I am quite sure that that is quite possible. The reduction in noise and in radio interference would be appreciated also by the public. With regard to the other savings in current collecting gear, such as Mr. Strickland has mentioned, we have not had any experience of the pantograph, but I have read with interest something of the operation of bow collectors in Hobart and Mr. Steer's remarks

about the Fishor bow, and I have just had the pleasure of reading an interesting article by Mr. McKinnon, the General Manager of the Glasgow Corporation. I think Mr. Steer has also referred to that. The reason why Glasgow replaced wheels by pantographs was stated briefly "that the wheel was not a safe and efficient collector at high speeds." Glasgow, I think, had an average speed - what they call schedule speed - of 9.8 miles per hour. Sydney has something like 12.17, but I think if we only had 9.8 to contend with we would not worry very much, but at 12.17 it makes us do a little more thinking. I am not quite sure, but I think we are higher than Melbourne and Adelaide. I know some time ago the average schedule speeds were:- Sydney, 12.17; Melbourne, 11.31; Adelaide, 10.47; and Brisbane, 9.88, so that Sydney has a higher speed and much higher than Glasgow and other cities and it looks as though we have to do something as they did in Glasgow to overcome our difficulties. I cannot say much about comparisons in the shoes. So far as Sydney is concerned, we have gone perhaps too far to change over to pantographs, but I think it would well pay us to consider the matter. Glasgow, as far as I can make out, spent a huge sum of money in the conversion and I have not heard yet whether they overcame their troubles. I think Mr. Steer mentioned that they were still getting extensive arcing at the suspension points, and I do not think Sydney wants to spend a lot of money and then find we are in the same boat. We would like to be sure. I think Sydney therefore appears to be committed either to the trolley wheel or the shoe. In my opinion, the 4" wheel, which is practically our standard wheel - we are using a few 6" wheels but not very many of them, else the "R" type car has a 6" wheel - is undoubtedly unsuitable for Sydney conditions and we must quickly decide on either a large and more modern wheel or a shoe which appears to be the ideal collector. The very fact of the low pressure and the long point of contact between the shoe and the wire are very great assets, and for Sydney should be the ideal thing for our high speeds and heavy current collection. We, as I have said, have committed ourselves to round trolley wires. Mr. Hursthouse has mentioned that in Adelaide they have been trying trolley shoes with round wire and that they are not very satisfactory. Personally, I do not think we would get much satisfaction by using shoes with round trolley wire. It is waste of time in my opinion, but I have not had very much experience with them. It would not be a very expensive matter to change over from round to grooved trolley wire. One of the great advantages of using grooved wire, which Mr. Strickland realises, is that you can use different size sections, and I think in places like Pitt and Castlereagh Streets where we have only an 0.4" wire and very dense traffic - I do not suppose it is any heavier anywhere - we could use a much larger section of trolley wire without having to alter any of our fittings. The grooved wire, with the standard groove for all sizes of wire, can be used without changing fittings, which is a very great advantage. If we want to put up bigger wire in Pitt Street now we have to change our mechanical cars and a number of different fittings, and I think the object of every engineer is to cut down the number of fittings which is used in the overhead wires, so I think Sydney if it wanted to use shoes, would be well advised to change to grooved wire.

I do not think there is anything further I can add, but I am very pleased to have heard Mr. Strickland's remarks. I would like to have heard more about the trolley wire side of it. I was in Melbourne, and pleased to see that burnish

on the wire the result of the lubrication, and I am quite sure that where they have that burnish any troubles with the trolley wire from wear will be very small.

Mr. Murdoch: It does show that this is one of those problems in which there are a number of independent opinions and it makes it very difficult to take the experience of one place and say that there should be a similar experience in another place. If you were to ask a conductor what he thought about the whole affair he would say the trolley pole is a confounded nuisance. He would not be far wrong, and I think that is the experience of engineers. They are endeavouring to get some relief from it but I do not think they have got very much relief so far. One wants one thing and the other wants another, and each has its place. If we can devise some system of overhead collecting gear which will reduce noise, which will reduce wear, which will relieve the conductors of this continual replacing of the trolley pole on the wire then we shall have done good work. The experience in Sydney does show that in addition to the overhead wire there is the track itself. The track is not in any way in a wonderful condition, and if the car is continually dipping up and down then the trolley poles have to respond to it and a higher pressure is required to keep the pole on the wire. You have to take that into account. We are not getting the life out of the pantagraph that we should get, but in Birmingham they have sections there in which the pantagraph was running over the same wire as the trolley and they said they had no difficulty at all, but they had a lubricating system with a great big drive underneath the shoe. I asked what life they obtained and was informed they did not know, as they measure it in years not in car miles. So you see there a different set of conditions again, and I think it is very desirable we should look into the improvement of the overhead trolleys, but don't forget that what may be good in Melbourne might not suit Sydney and we have to take everything into account, not only the cost but the reaction on the overhead and the track itself.

Mr. Steer: Without being in any way competent to speak on the engineering side of this question I know that in Glasgow where they went over to the Fischer bow they found the results disappointing until they altered the overhead and made it much more flexible. I tried to find out how much they had spent but I could not get at it. I asked what the result was as regards the saving in wear on the trolley wire but their experiments were not complete. Mr. McKinnon promised to send me the information later on. Sunderland had the same experience. They started to put in the Fischer bow and they got a flash at every span wire. There again they are making their overhead work far more flexible and of lighter material, not only so but Glasgow developed a special flat-bottomed trolley wire in order to suit the Fischer bow. They are pleased with the results according to what Mr. McKinnon wrote in an article on the subject lately, but it would be interesting to know what it cost.

Mr. MoBurney: A couple of years ago we made a test with a trolley shoe. It was a steel shoe, running on one car on the Enfield system. There were about 22 or 23 cars running on the same system with wheels so that I suppose that was not an altogether satisfactory test. The overhead wire was not lubricated. We got a mileage of 19,800. With regard to the shoes being unsatisfactory in Sydney, I think that is due to the failure to run backwards satisfactorily, but during

that test which I just mentioned I did not hear any complaints from the Traffic Branch so I presume that when they wanted to go backwards they used the other pole.

Mr. Keele: I am very glad to hear that Mr. Strickland has made reference to the lubrication of the wire. To indicate the benefit from lubrication, the Railway Department at the present time has evolved a scheme for lubricating rails. On the City Railway where renewals of manganese rails every six months were taking place, it is expected that the life of a similar type of rail lubricated will be seven years. In the Tramway Department one of these lubricators has been installed at Wynyard Station on the crossover at the terminus, and if any members of the Conference would like to see this device I would only be too pleased to show it to them. It is a similar device to that in use in the Railway Department, except that the tongues, which come in contact with the tramway rails, are slightly amended to suit tramway conditions. The lubrication of the gauge side of the rail in the Railway Department at the present time, has been so successful that the Chief Civil Engineer has even offered to sell me manganese rails because he does not propose to use them in future. He proposes to substitute the carbon steel rail where he has been using manganese on account of the anticipated long life of the carbon steel.

Mr. Edwards: We did make a trial many years ago in Sydney with the Miller shoe and it was most unsatisfactory. The early aspect of the test was so good that the Department went to the expense of ordering a couple of hundred but as the life of the shoe continued the trouble became worse. The mileage obtained, as quoted by Mr. McBurney, was about 19,800. I might add that with the wheel that is now used on the "R" type car we are getting in the vicinity of that.

Mr. Strickland: Mr. Chairman, all I want to say in reply to Mr. Ashcroft's complaint is that I have not dealt with this from the point of view of the overhead. I explained at the outset that it was submitted for information. It was not supposed to be a comprehensive paper. Also there is the point that these things were prepared by the Overhead Department and not by the Rolling Stock Department so that it is taken from their point of view. The old type of Miller shoe was tried, of course, as Mr. Edwards said, many years ago, but the present shoe has a somewhat different head in that the point of rotation of the shoe has been altered so as to get a more parallel operation. Neither of them is successful unless run on a line on which no trolley wheels are used.

Chairman: I take it there is no further discussion on the paper. We are indebted to Mr. Strickland for the information that he has given us and we will be very interested indeed, Sir William, to hear the result of your experiments in due course. I take it you will make it available to the various entities attending the Conference.

Sir William Goodman: Yes, Mr. Chairman, I will let you have our experience of the trolley shoes and I would like to inform you that we have decided to equip some of our cars with pantographs. We run up to 45 miles per hour on the Glenelg Railway, and as the result of my experience in Europe I have decided distinctly in favour of the pantograph in

preference to the bow collector because the vertical acceleration is so much better.

We will let you have particulars of that as soon as we get any information which we consider reliable.

Handling of Heavy Traffic on Special Occasions - Sydney
Tramways.

Mr. Timmony read his paper on this as follows:-

COMMERCIAL SQUARE



✦ PRINTER ✦