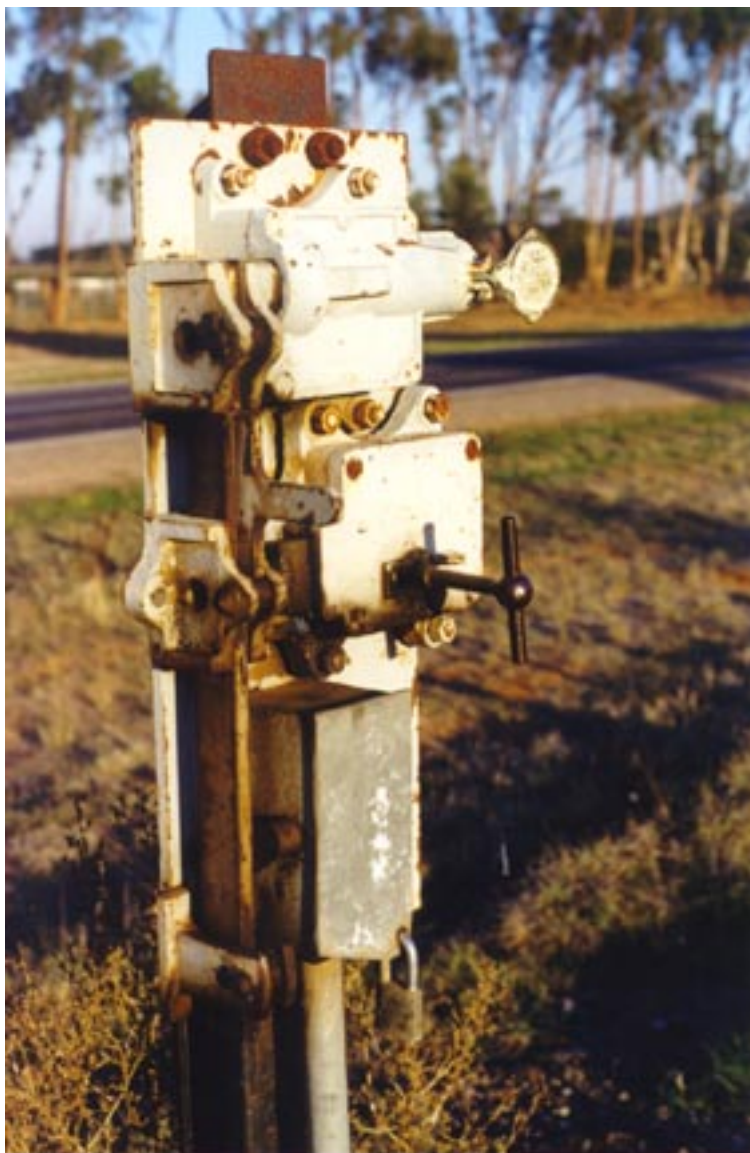


SOMERSAULT

MAY 1999
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SIGNALLING RECORD SOCIETY OF VICTORIA INC



The operation of flashing lights or boom barriers should send an unambiguous message to car and truck drivers: a train will shortly cross this road. The presence of a siding near a set of flashing lights or boom barriers causes problems with this simple message as a shunting train may repeatedly occupy the approach track circuit, triggering the lights, without ever entering the level crossing. One of the techniques used to prevent a shunting train from triggering level crossing protection equipment is a Staff/Annett Key Exchange Apparatus. This is the Large Staff version (actually Large Master Key version these days). The main line points are secured by an Annett Lock with the Annett Key normally being secured in the Exchange Apparatus. When it is necessary to shunt the siding, the Staff (or Master Key) is used to unlock the Staff Lock at the top of the apparatus. This frees the vertical slide which, when lowered, allows the Annett Key to be withdrawn. Lowering the slide also operates the circuit controller at the bottom of the apparatus and this prevents the flashing lights from operating while the train shunts the siding. This Exchange Apparatus was installed at the Up end Wycheproof Sub Terminal on 24 October 1985.

Photo: Andrew Waugh

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MINUTES OF MEETING HELD FRIDAY MARCH 19, 1999

At the Surrey Hills Neighbourhood Centre, 1 Bedford Avenue, Surrey Hills.

Present: - J.Black, W.Brook, G.Candy, J.Churchward, G.Cumming, A.Gostling, A.Hinde, W.Johnston, K.Lambert, D.Langley, B.McCurry, J.McLean, B.Sherry & P.Silva.

Apologies: - G.Cleak, M.Guiney, G.O'Flynn, G.Reynolds, L.Savage, R.Smith, A.Waugh & R.Whitehead.

Visitor: - J.Blakeborough & C.Gordon.

The President, Mr. David Langley, took the chair and opened the meeting @ 2112 hours, following the 1999 Annual General Meeting.

Minutes of the February 1999 Meeting: - Accepted as published. W.Brook / B.Sherry. Carried.

Business Arising: - Nil.

Correspondence: - A letter was received from Jon Churchward regarding subscription rates for 1999. It was agreed to refer this letter to the Committee.

A letter was sent to Vance Findlay thanking him for the entertainment at the February 1999 meeting.

A letter was sent to the management at Caulfield Signal Construction thanking them for their assistance with the removal of the South Yarra frame.

J.McLean / W.Johnston. Carried.

Reports: - Archives. A report from the Archives Sub - Committee was read by David Langley: - As has been reported elsewhere, no action is currently forthcoming on the ceiling in the second room at the Seymour Archives Rooms. With the impending privatising of the railway, we may have to wait to see who lays claim to owning the station building at Seymour and raise the subject with them. There is a possibility that we may have to do something ourselves.

I would like to mention a recent notable acquisition for the society. That was the transfer of the South Yarra power frame to Seymour and the dismantling was made a relatively simple task because of the eight members who turned up at Caulfield on that Wednesday morning, thank you Bill Johnston, Peter Silva, Andrew Waugh, Bob Whitehead, Glenn Cumming, Jon Churchward, David Langley and Colin Rutledge. I might also add that a quick course in crane chasing was held that morning with eight graduates.

Also thank you to Colin Rutledge who arranged for the transfer of the frame to Seymour and thank you to the Secretary for unloading most of it. Although admittedly there were no steps to lug the frame parts up or down, and no crane.

The report was followed by a discussion on the former Signal School at Caulfield.

Editorial. In the absence of the Editor, Peter Silva advised that the March 1999 issue of *Somersault* had been printed using a new printer. The reasons for the change were explained and the results were discussed. Further explanations & answers to questions were given by Glenn Cumming & Peter Silva.

Tours. Glenn Cumming reported on the proposed arrangements for the 25th Anniversary Tour in March 2000.

General Business: - Jon Churchward tabled a recent issue of *Fifty - Plus News* that included a letter from S.R.S.V. member Brian Coleman requesting information on Block & Signal Inspectors.

The February 1999 issue of A.R.H.S. Bulletin contained an obituary for A.R.H.S. & S.R.S.V. member Roger Jefferies who passed away in September 1998. It was agreed that the obituary should be published in Somersault and the Secretary & the Editor were to arrange for this to happen.

Keith Lambert discussed proposed track alterations to take place at Ringwood over the next month. Keith advised that the new signal box is expected to be commissioned in late June 1999.

Glenn Cumming tabled the latest diagrams for Lidcombe & Flemington Goods Junction in New South Wales, received from Reg Lloyd.

A privately published history of the Whittlesea Line was tabled & discussed. This led to a discussion regarding the mileages of locations on the Whittlesea Line.

Andrew Hinde advised that the S.R.S.N.S.W. tour of the Illawarra & South Coast would take place tomorrow. Andrew noted that the N.S.W. election promises included electrification on the South Coast.

It was noted that construction had finally commenced on the triangle at Parkes in New South Wales.

Glenn Cumming advised that the High Street level crossing at Glen Iris was being rebuilt this weekend.

Meeting closed @ 2206 hours.

The next meeting will be on Friday 21 May, 1999 at the Surrey Hills Neighbourhood Centre, Bedford Avenue, Surrey Hill, commencing at 2000 hours (8.00pm).

SIGNALLING ALTERATIONS

The following alterations were published in WN 5/99 to WN 14/99. The alterations have been edited to conserve space. Dates in parenthesis are the dates of the Weekly Notice.

22.01.1999 **Mooroolbark**

On Friday, 22.1., the trial of the manually operated pedestrian gates was terminated and the crib crossing re-instated. SW 150/98 is cancelled. (SW 9/99, WN 5/99)

30.01.1999 **Spencer Street**

Commencing on Saturday, 30.1., the southernmost gantry spanning the approaches to Spencer Street was removed in preparation for the construction of the new Latrobe Street bridge. On Saturday, Up Homes SST178, SST513, SST514, and SST516 were replaced by ground level 'underground' style signals. On Sunday, Down Automatics 527 and 421 were replaced by ground level 'underground' style signals and Down Home 533 was replaced by a colour light signal on a new Post situated on the Down side of the line. Amend Diagram 21/94. (SW 1006/99, WN 5/99)

07.02.1999 **Flinders Street**

On Sunday, 7.2., Home 158 (along No 14 Track) was abolished. Amend Diagram 51/98. (SW 8/99 & 11/99, WN 4/99 & 6/99)

07.02.1999 **Spencer Street**

On Sunday, 7.2., in preparation for the construction of the new Bourke Street footbridge, Up Automatics 680 and 720 (for movements into Platforms 12 and 13 respectively) were removed from the signal gantry and replaced by new 'underground' signals located at ground level. The heads on Down Automatic 815 (Through Suburban Line) were lowered 1 metre on the mast. Amend 21/94. (SW 10/99, WN 6/99)

07.02.1999 **Woodend - Kyneton**

On Sunday, 7.2., Boom Barriers were commissioned at Carlsruhe Station Road (84.860 km) on the Up side of the closed station. (SW 1005/99, WN 4/99)

(09.02.1999) **Upfield - Gowrie**

When it is necessary for a train to be set back to either Gowrie or Upfield due to a mishap, the following procedures must be observed.

1. Up Train to return from Gowrie (Up platform) to Upfield

The Signaller must ensure the Points at Gowrie are normal and sleeve the lever normal. The Signaller must then comply with Rule 6B, Section 16, Book of Rules and then issue an ATC System Caution Order (Form 2367) to the Driver, completed in accordance with Rule 8E, Section 16. The Driver must take down the Caution Order in the book provided in the post telephone cabinet. When passing through the section, the Driver must ensure that the booms at Camp Road are horizontal before entering the level crossing.

2. Down Train returning from the Single Line to Gowrie

The Signaller must ensure that GOW529 (Down Departure Home) is secured at 'Stop' and that the line between the train and Up Home GOW524 is clear.

If the train is situated between GOW524 and GOW522, the Signaller will then clear GOW524. After changing ends, the Driver will then Drive the train to Gowrie. If the train is beyond GOW522, the Train Controller at Metrol must issue a Train Authority to return to GOW524. Once the Train Authority has been correctly received, the Driver may proceed to Up Home GOW524, which may be operated in the

normal way to allow the train to enter the platform.

Circular TS 216/98 is cancelled.

(TS 5/99, WN 5/99)

(13.02.1999) **Spencer Street**

On Sunday, 13.2., the following signalling alterations took place.

In preparation for the construction of the new Bourke Street footbridge, Up Automatics 304 and 492 (for movements into Platforms 10 and 11 respectively) were removed from the signal gantry. Up Automatic 304 was replaced by a new colour light mast, while 492 was replaced by a new 'underground' signal located at ground level.

In preparation for the construction of the new Latrobe Street bridge, Up Automatics 490 and 806 (Main Suburban and Through Suburban lines respectively) were removed from the signal gantry. Up Automatic 490 was replaced by a new colour light mast, while 806 was replaced by a new 'underground' signal located at ground level.

Amend 21/94.

(SW 12/99, WN 6/99)

(16.02.1999) **Williamstown**

The post telephones at Homes WMN742 and WMN743 are now recorded.

(TS 6/99, WN 6/99)

16.02.1999 **Brighton Beach**

On Tuesday, 16.2., a co-acting signal was provided for Up Home BBH909 (for movements from No 3 Platform - Lever 12). The co-acting signal is a ground mounted 'underground' style signal situated on the Up side of the line 5 metres ahead of the post. Amend 27/88.

(SW 17/99, WN 8/99)

20.02.1999 **Ringwood**

From Saturday, 20.2., the pointwork at the Up end of the yard was abolished. Crossovers 17/18 (Down line to Nos 1, 2, and 2A Tracks), 22/23 (Up line to No 1 Track), and 24/25 (No 3 Track to Up line) were spiked normal. Crossover 27/28 (Up line to No 2 Track) was spiked reverse. Points 26 (Siding E to No 2 Track) were spiked normal. Catch 20 (Up end of No 2A Track) was spiked open. Dwarfs 21, 29, and 30 (the last mechanical signals at Ringwood) were abolished. Track circuits 23T and A23T were abolished. Levers 17, 18, 21-26, 29 and 30 were sleeved normal. Levers 27 and 28 were sleeved reverse.

(SW 15/99, WN 8/99)

22.02.1999 **Lal Lal**

The mechanical interlocking was abolished commencing Monday, 22.2. Posts 1, 2, 3, 4, 5, and 6 were abolished. The Annett Lock on the Down end points and the Double Wire operation of the Up end points (Points 6 & Plunger 5) were removed. The points were rodded to derails and wheel crowders and secured by T21 point machines locked by ST21 locks. V5PSW key switches are provided on each side of Claredon Street to control operation of the flashing lights for shunting movements along No 2 Track. Boards lettered 'Trains must not enter Crossing until flashing lights are operating' have been provided on each side of the crossing. Diagram 10/98 replaced 2/96.

(SW 1014/99, WN 7/99)

25.02.1999 **Kilmore East**

On Thursday, 25.2., the Up Distant Post 14 was converted to a light signal. Amend Diagram 36/90.

(SW 1017/99, WN 8/99)

26.02.1999 **Kyneton**

On Friday, 26.2., the mechanical crosslocks securing the Down end points were temporarily replaced by Annett Locks while the pit is being reconditioned. The small point lever operating the Down end Crossover has been secured by an A Pattern Annett Lock with a duplicate lock on lever 26. The small point lever operating the points to the stabling sidings at the Down end has been secured by a B Pattern Annett Lock with a duplicate lock on lever 27.

(SW 1020/99, WN 9/99)

28.02.1999 **Safeworking Management**

From Sunday, 28.2., the position of Superintendent Safeworking in the PTC was abolished. The Manager Rail Safety in the VRTC is now responsible for Safeworking Policy and day to day management of Safeworking relating to Rail Safety in Victoria (including Hillside and Bayside trains). The Manager Rail Safety is now responsible for the Book of Rules, and (from issue 12) the Weekly Operational Notice.

(SW 1018/99, WN 8/99)

28.02.1999 **Murtoa**

On Sunday, 28.2, Boom Barriers were provided at the Wimmera Highway (297.574 km) on the Up side of Murtoa. The operation of the booms is interlocked with signals 6, 8, 10, 12, and 14. Dwarfs 8 and 14 are approach operated and require the Booms horizontal before they will clear.

A V5PSW key switch is provided in the cabin at the level crossing to disengage the boom mechanism during failures. Inserting and turning a key from the 12 o'clock position to the 2 o'clock position will allow the boom barriers to be manually raised. The key must not be operated unless the booms are horizontal. It is not possible to remove the key while it is in the 2 o'clock position, and it is not possible to shut the door of the cabin unless the key is removed.

Amend Diagram 48/90.

(SW 1012/99 & SW 1022/99, WN 7/99 & WN 9/99)

- 01.03.1999 **Ringwood**
From Monday, 1.3., all existing pointwork at the Up end was removed and a new facing crossover was provided between the Up and Down Main Lines. The crossover is fitted with dual control point machines and is worked by lever 17. Lever 18 became a pilot lever. Up Home 36 (for Up moves from No 3 Road) was fixed at Stop and the Low Speed light was removed. The control (lever 55) was removed from Up Controlled Automatic L780 and the signal was renumbered RWD223. (SW 18/99, WN 9/99)
- (02.03.1999) **Dynon**
To allow SCT to shunt the Fruit Sidings by a Rail Tractor, two hand operated Derails have been provided in the neck of the Fruit Sidings in the rear of Dwarf 90. One Derail prevents movements from the Fruit Sidings towards Dwarf 90. The other prevents movements into the Fruit Sidings and is secured by a 4D padlock with the keys held by SCT. Notice Boards lettered 'Limit of Tractor Shunt' and 'Derail' are provided adjacent to the Derails.
The outgoing Derail is normally locked off the rail. The ingoing Derail is normally locked on and must only be taken off when a train is to enter the sidings, or after SCT finish work.
Before commencing shunting, the SCT employee must check that no locomotives are operating in the Fruit Sidings. The employee must then request permission from the Signaller, West Tower to place the incoming derail on the rail. The Signaller must check that a route has not been set for a train to enter the Fruit Sidings and sleeve Points 95 (leading to Dynon) normal. After receiving permission, the SCT employee must lock the ingoing Derail on and set all applicable hand points away from the SCT sidings. When shunting has been completed, the employee must lock the Derail off the rail and notify the Signaller, West Tower. (SW 1019/99, WN 8/99)
- (09.03.1999) **Ford's Sdg - Somerton**
Standard Gauge trains may operate in Ford's Sdg. (SW 1021/99, WN 9/99)
- 10.03.1999 **West Tower**
On Wednesday, 10.3., the signalling in the area immediately in front of West Tower was abolished in preparation for the demolition of bridges 1 to 6 at Dudley Street.
Dwarfs 100 (Weighbridge Track to West Yard), 104 (Broad Gauge Transfer to West Yard or D Balloon), 106 (South Hump Avoiding Track to West Yard or D Balloon), 230 (West Yard to Broad Gauge Transfer or South Hump Avoiding Track), and 232 (D Balloon to Broad Gauge Transfer or South Hump Avoiding Track) were abolished. Points 103D in the South Hump Avoiding Track were spiked reverse to lie towards the West Yard. Points 103U were fitted with a WSA lever. Crossover 105 (D Balloon to Broad Gauge Transfer) were spiked normal. Amend Diagram 8/97 (SW 1025/99, WN 10/99)
- 11.03.1999 **Ringwood - Heathmont**
On Thursday, 11.3., Down Automatic L855 was reverse staggered to improve sighting. (SW 1037/99, WN 11/99)
- 12.03.1999 **West Tower**
On Friday, 12.3., the lead to the former Centre Yard was abolished in preparation for the demolition of bridges 1 to 6 at Dudley Street.
Dwarfs 108, 228, 236, 238, and Home 240 were abolished. Points 107 and 109 were abolished. Points 123 (North Hump Avoiding Track to Centre Yard) were spiked reverse and 135 (Main Goods Lines to Departure Track) were spiked normal to prevent movements towards the Centre Yard.
Amend Diagram 8/97. (SW 1025/99, WN 10/99)
- (16.03.1999) **North Melbourne**
Both the Team Leader (when on duty) or North Melbourne Maintenance Supervisor (otherwise) and the Signaller at Metrol must be informed when the Driver controlled points at North Melbourne are booked out of or into service. The Rules in Section 5 must be observed. (SW 1024/99, WN 10/99)
- (16.03.1999) **Bayswater & Westall**
Both the Maintenance Facility Supervisor and the Signaller must be informed when the Driver controlled points at Bayswater and Westall are booked out of or into service. The Rules in Section 5 must be observed. (SW 1024/99, WN 10/99)
- 17.03.1999 **Winchelsea**
On Wednesday, 17.3., the Up Home was renewed. (SW 1034/99, WN 11/99)
- 22.03.1999 **Lal Lal**
On Monday, 22.3., a Healthy State Indicator was fitted to the Up side flashing light mast at Clarendon Street. (SW 1036/99, WN 11/99)
- (23.03.1999) **Book of Rules**
The existing Clause 6, Section 26, Book of Rules dealing with Train Register Books and Forms has been amended to include the period used books and forms are to be retained. Generally, the period is 7 years, except for the following which are kept for 1 year: Staff Tickets, Single Line Working Forms (2414), Single Line Working Cancellation Forms (2415), Receipt for Damaged Staff (2541), Train Controller's Absolute Occupation Order (2356), Absolute Occupation Order (2417), Master Permit to Foul the Line (2420),

MORELAND

A feature of many railway stations is that the track and signal arrangements remain unchanged for many years. Moreland took this characteristic to extreme lengths; the station remained essentially unchanged from interlocking in 1892 until the sidings were removed in 1988 - 92 years.

Opening and passenger traffic

Moreland was opened with the line on 9 August 1884. Initially opened for passengers only and the traffic figures were initially relatively low; only 24,000 passengers for the first 11 months. This reflected the location. Exactly half way between the towns of Brunswick and Coburg (the municipal boundary was Moreland Road) the surrounding area was consequently undeveloped. The passenger figures climbed steadily to 51,000 for 1885/6, and 77,000 for 1886/7. The Sydney Road cable tram, which terminated at Moreland Road, was opened on 1 October 1887. The effect on railway patronage was immediate and severe; passenger journeys falling to 54,000 in 1887/8 and then to 48,000 in 1888/9. This was the low point, patronage then recovered to 63,000 (1889/90) and then 68,000 (1890/1), no doubt due to increased local subdivision.

Perhaps as an attempt to lure the locals back to the railway, McConnell and McIntosh were awarded the contract for erection of a brick station building at Moreland on 31 August 1888. Erected on the Up platform (and still in use today) it is of the 'Maldon' style and the contract price was £1720/17/1. McConnell and McIntosh also built the station buildings at South Brunswick and Brunswick erected at the same time.

The Grain Stores and their effect on the station

The Government Gazette of 13 May 1887 noted that Moreland had been opened for goods in truck loads (despite this, the first goods traffic at Moreland was recorded in 1885/6; a grand total of 133 tons in and 3 tons out!). In 1886/7 Moreland recorded a respectable 2,400 tons in and 400 tons out. The location of the goods siding is not known, but it was probably located opposite the passenger platform.

The next year, however, inwards goods traffic had jumped sevenfold to 16,000 tons. The destination of this traffic were several grain stores erected to the west of the line near Tinning Street. The first grain store appears in the 1888 Sands and McDougall's directory as 'Melville & Co' in Tinning Street west of the railway crossing. By 1891, Colebrook street had been formed (on the western side of the railway yard) and 'D. Melville & Co Stores' was now located on that street near Tinning Street. These grain stores generated around 13,000 tons of inward traffic and 10,000 tons outward per year at least until 1890/1. To serve the grain stores, an additional siding would have been provided on the Down (west) side of the line south of Moreland Road. All the points at Moreland at this time would have been secured by hand locking bars and the station protected by Home signals.

Shunting Moreland would have been difficult as the station was neither a staff station or a block post. As the daily two goods trains (one conditional) were run during passenger traffic, the goods trains would have had only a short period in which to shunt before having to leave for Coburg or Brunswick to clear the line. It is scarcely surprising then, that Moreland was opened as a Block and Staff station on 24 September 1889, dividing the Brunswick - Coburg section. Around 1890 it was recorded that the Brunswick Staff was of No 2 Pattern with Red Ticket boxes, while the

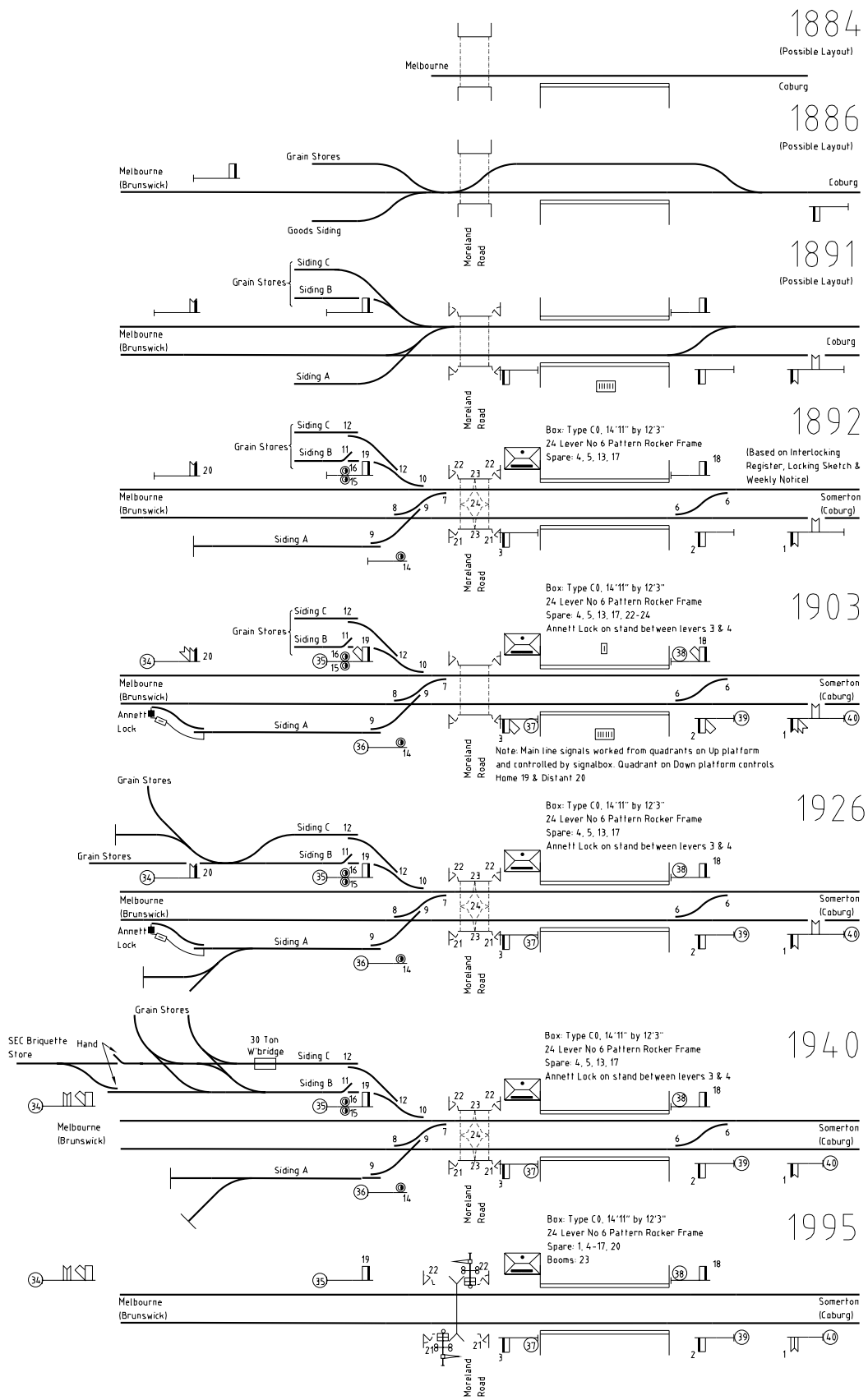
Coburg Staff was of No 3 Pattern with Blue Ticket boxes. By this time it is known that the public goods siding was situated on the Up (east) side of the line south of Moreland Road, roughly in the position that it occupied this century. A crossing loop was probably provided and was likely to have been situated opposite the platform.

The line was duplicated through Moreland on 20 December 1891. In preparation for duplication, a contract was let to Shoreland & Co on 7 August 1891 for the construction of shelter sheds and booking offices at Brunswick and Moreland at a cost of £185/0/5. Moreland remained a Block post but was not initially interlocked. It is likely that the layout was the same as that provided after interlocking with the points worked from hand levers and the signals from quadrants on the Up platform. Interlocking was belatedly provided just under a year later on 6 October 1892. A 24 lever No 6 Pattern Rocker Frame (4 spare) was provided in a Type C0 signalbox situated adjacent to the gates at Moreland Road. The signalbox appears to have been second hand from elsewhere; no contract for its erection was recorded and new Type C0 boxes had ceased to be erected in late 1886. Yet again no details of the track layout have survived, but we can be reasonably confident about the layout. The number of spare levers is unchanged in 1899 when the new Interlocking Register was commenced and the first known list of signals was published.

During the depression, the VR ceased publishing traffic returns, but the grain stores would have continued to generate traffic. By the 1895 Sands & McDougall's directory, it appears there were five stores. Three were located on Colebrook Street for Darling and Sons (Grain Merchants), The Victorian Farmers Loan and Agency Co, and D. Melville & Co. The other two were located on the north side of Tinning Street, with D. Melville & Co having a second store west of Colebrook Street, and Goldsborough & Co being located immediately east of the railway. Despite the number of stores, by 1895/6 (when the VR recommenced recording traffic levels) traffic had fallen to 3,700 tons inwards and 3,600 tons outwards. By 1897, the Victorian Farmers Loan and Agency store was vacant and the Goldsborough & Co store was owned by Mort & Co, but D. Melville & Co had opened a third store south of Tinning Street west of the railway. By this time, traffic had picked up again to around 10,000 tons inward and 4,000 tons outwards which was maintained until the First World War. The annual figures fluctuated widely, however, the inwards figures for example from 5,000 tons in 1902/3 to 20,000 tons the next year. The traffic, no doubt, reflected the success or otherwise of the year's grain harvest.

Turn of the century alterations

On 16 July 1900 an Annett Lock was provided on the trailing connection from the public goods siding (Siding A) to the Up line. The Annett Key was kept in a duplicate lock in the interlocking frame. This trailing connection was probably installed at this time and would have assisted in shunting Up trains. By 1901 three goods trains served Moreland. A conditional Moreland Goods arrived at 0650 and shunted the yard for two hours before returning to Melbourne at 0855. This goods did not shunt at any other station. In addition, the daily Somerton goods shunted from around 1115 to 1136 (on the Down) and from around 1435 to 1500 (on the Up). Neither of the NE Goods shunted Moreland, however, when No 24 NE Goods ran it refueled at Moreland from 1800 to 1815 to allow a suburban pass to overtake.



On 10 November 1903, the Signalman was withdrawn from the signalbox and block working was undertaken by the station staff (the signalboxes at South Brunswick and Brunswick were similarly treated on the same day). The block instruments were transferred to the station office on the Up platform and the working of the main line signals (Homes 2, 3, 18 & 19 and Distant 1 & 20) was transferred to a set of quadrant levers on the Up platform situated immediately outside the office door. A gatekeeper was provided to work the gates and wickets at Moreland Road. The signalbox was retained to work the sidings but was only staffed when it was necessary for a goods train to work the yard. A signalman travelled with the goods train for this purpose and operated under the instructions of the block worker.

Passenger traffic showed a steady, if unspectacular, increase until the first world war as the surrounding area was built up. There was 103,000 passenger journeys in 1895/6. In 1900/1, 211,000 was reached, 250,000 in 1904/5, 350,000 in 1906/7, 500,000 in 1909/10 and 716,000 in 1914/5. The increasing workload on the station staff was probably responsible for the restoration of the signalman and the return of the signalbox to full use on 1 August 1911 (South Brunswick and Brunswick signalboxes were also restored to full use on the same date).

Railway and Tramway Electrification

A horse tram running along Sydney Road from the cable terminus at Moreland Road, through Coburg, to Gaffney Street had been opened on 14 February 1889. The line was built by the Northern Tramway Company, but the tramway fell into the hands of the Coburg council after the private company failed. In 1915 the council formed a Trust with the Melbourne and Brunswick councils to electrify the line and extend it to Melbourne via Moreland Road and Lygon Street (the current Moreland route). The horse line itself was electrified on 27 April 1916. On 14 August 1916 the line was extended along Moreland and Lygon Streets to the Inner Circle. The final stretch was opened on 31 October 1916 when the line was extended down Lygon, Elgin, and Madeline (now Swanston) Streets to the cable tram terminus at Queensbury Street. Passenger traffic at Moreland promptly fell to around 600,000 journeys per annum and stagnated.

The railways, of course, had their own electrification plan. Delayed by the War, electric trains replaced the steam passenger service on 2 December 1920 (the overhead had been electrified in late November). The electrification was an immediate and dramatic success. Passenger journeys at Moreland doubled in just three years and had tripled to 1,900,000 by 1925/6. Passenger numbers declined in subsequent years due to the opening of North Brunswick station on 15 December 1926 and the ongoing electrification and extension of the tramway system. The Coburg electric line, which stopped short of the city, had been extended to Lonsdale street in February 1924 but this was still on the edge of the city and had little effect on rail patronage. In January 1926 the Coburg trams were extended to run the length of Swanston Street. The West Coburg line was extended from Albion Street to Moreland Road on 15 May 1927 and then Bell Street on 26 June 1927. All this activity caused a decline to 1,600,000 passengers in 1927/8. The decline continued, particularly with the start of the depression, and by 1930/1 patronage had fallen to around 1,200,000. It remained roughly at this level until the electrification of the Sydney Road cable trams (completed on 26 April 1936) when patronage fell to around 1,000,000 journeys per year.

The goods service remained steam hauled and none of the sidings, nor either of the crossovers, were ever electrified. The intensive electric passenger service made it difficult to run the goods service, and, by 1924 the regular goods service had been rescheduled to run after the passenger service had ceased. The train passed through Moreland on the Down at 0145 and on the Up at 0300. A conditional goods ran during daylight and was restricted to shunting Moreland and Coburg only. It shunted Moreland between 1024 and 1100 on the Down and refuged between 1210 and 1233 on the Up.

Shunting Moreland in the dark was obviously the cause of an incident in early 1925 for in late July a special instruction was added to the GA. Because of the 'heavy falling grade' into the sidings, when it was necessary to loose shunt trucks into the sidings only sufficient force was to be used to carry the trucks across the level crossing. A shunter had to meet the trucks at the crossing and steady them down into the sidings, and the shunter cutting trucks off had to work out which side of the rake had the most hand brakes and call out this information to the other shunter before giving the 'move back' signal. It would appear that there was a 'heavy' shunt one night due to an over enthusiastic shove by the engine which could not be recovered by the shunter as he was on the wrong side of the rake.

Operation of the goods in the early morning was obviously expensive due to the extended hours of manning. Moreland signalbox, for example, had to be staffed from around 0515 to 0325 the next morning. On other lines with this problem a Signalman travelled with the train to operate the signalling, but this was not possible on the Coburg line due to the use of block signalling and the number of level crossings. In late January 1928 instructions were issued so that after the 1155 Down goods had passed through North Brunswick, the Signalman there walked to Moreland and relieved the Signalman there, who, in turn travelled to Coburg to take charge. If the Goods departed Coburg before the first Up Passenger (which it should, as it was scheduled to depart Coburg at 0230, well before the first passenger departed Coburg at 0519), the signalman would ride on it back to Moreland, operating Reynard Street gates on the way. If the Goods followed the first passenger train, the signalman would be relieved by the early shift Coburg signalman coming on duty at 0500 and would have to walk back to Moreland. These instructions only applied if the 0030 Conditional Goods was not running to Moreland.

Goods traffic at Moreland, incidentally, was booming. Throughout the twenties and thirties inwards tonnages were generally between 37,000 and 42,000 tons per year. Outwards tonnages were an order of magnitude lower and ranged from 2,800 tons to 5,600 tons. The 1927 Goods Rates book noted the following firms active at Moreland: Victor Plaster Mills, Moreland Timber Co, Pender, and Moreland Grain and Free Stores. The first three used Siding A, the book noting that the charge for Victor Plaster Mills and Moreland Timber Co was for "placing trucks at Up end of 'A' Siding clear of points to Pender's Siding; trucks will be sorted out, when necessary, by Moreland Timber Co." By 1932, the Sands & McDougal Directory noted that the grain store south of Tinning Street was now used by the SEC as a briquette store, and the Victor Plaster Mills had become the Brunswick Plaster Mills. In late January 1937 Pender's Siding was transferred to the Moreland Timber Coy.

The Annett locked connection from Siding A to the Up line was removed on 26 November 1928 to allow the siding to be extended 155 feet.

Probably as a cost cutting measure, the goods service

reverted to daylight working sometime in the 1930s. The earliest WTT I have which shows the daylight service is 1936, but I suspect that the change dates from early 1931. In February 1931 permission was granted to run without a brakevan in the rear from Moreland to Brunswick (maximum 25 vehicles) and between Moreland and Coburg (maximum 20 vehicles). This permission would simplify shunting; important if the goods was to shunt while keeping out of the way of the passenger service. In August 1931, the maximum length of Down daylight goods trains between Moreland and Coburg was restricted to 17 vehicles (giving a train length of around 500 feet). This was too restrictive and it was restored to 20 vehicles in early 1932 (giving a train length of around 560 feet). By 1936 there was one daily Goods scheduled which shunted at Moreland on the Down from 1520 to 1620. By 1939 there were three daily goods, two of which terminated at Moreland. The first shunted Moreland on the Down between 1218 and 1300. The second arrived at 1520 and returned to Melbourne at 1813, and the third arrived at 1942 and returned at 2235. Moreland would certainly have been an interesting place to watch trains at that time!

Minor signalling alterations took place in May 1935 when both Home signals were relocated slightly further out. The Down Home (Post 39) was moved 43 yards further out on 3 May, and the Up Home (Post 35) was moved 22 yards further out on 8 May. By December 1936, Moreland had been made a block terminal for Down trains; 'line clear' could consequently be given to Brunswick if the line was clear to Post 35. This must have made shunting Moreland during passenger traffic easier.

The War and afterwards

The only change recorded at Moreland during the War was the fixing of the Down Distant at caution. This officially occurred on 11 August 1944, but this date probably represented the removal of lever 20 from the frame. The real date is likely to have been 27 November 1940 when Tinning Street gained control of the Down Home at North Brunswick.

When the reporting of traffic statistics resumed in 1945/6, Moreland was still recording around 100,000 passenger journeys per annum, a figure it maintained until 1949/50. The rail and coal strikes of that era then halved passenger traffic within two years. The traffic then slowly drifted lower until by 1985/6 (the last year statistics were published) the passenger journeys had fallen to 410,000.

Goods traffic was far more healthy. It, too, was roughly at the same level as when the war started; around 43,000 tons inward per annum and roughly a tenth of that outwards. This traffic was maintained for a decade until, in 1954/5 inwards traffic suddenly jumped by 50%. It then remained around 65 to 70,000 tons per annum until the early 60s when it fell back to a little under 50,000 tons. By 1961, the Norris and Wilkinson grain store (successor to the Moreland Grain Store) had been closed, leaving the SEC Briquette Depot, the Moreland Timber Coy, and the Brunswick Plaster Mills as sources of traffic. A siding had been provided for the Plaster Mills in early August 1951. The siding lead off Siding A 160 feet on the Up side of the Timber Coys Siding and provided room for just two trucks. All three firms were still listed in the 1980 Goods Rate Book,

though the Brunswick Plaster Mills were now owned by CSR. The WTT Addenda for 1980 restricted roadside goods trains during passenger traffic to 35 vehicles between Spencer Street and Moreland and 16 between Moreland and Coburg. Goods trains were still authorised to run between Moreland and Coburg without a brakevan at the rear. A couple of GYs were noted in Siding A as late as June 1985.

Rotating lights had been provided at Moreland Road on 22 December 1976. Traffic lights were installed at the intersection of Cameron Street and Moreland Road (just to the east of the railway) on 26 June 1985. These lights were co-ordinated with the interlocked gates. A box was provided on the block shelf with 'call' and 'cancel' buttons. An electric lock was provided on the gatestop lever to prevent the lever being moved from the full reverse position until the traffic lights had cycled to a phase suitable for rail movements. This was only a temporary arrangement, for on 7 December 1986 the interlocked gates were replaced by boom barriers in conjunction with the widening of Moreland Road. The boom barriers were manually operated by the former gatestop lever. An additional electric lock was provided on that lever to prevent that lever from being placed fully normal until the booms had fully lowered. The four mechanically operated wickets remained.

The Up Distant on Post 40 was fixed on 11 November 1993. This was the last working distant on the Upfield line but had probably not been worked for many years, in fact the condition of the wire meant that it could not have been worked. Lever 1 became spare in the frame.

Siding A was booked out of service on 4 September 1987. Points 9 were spiked normal and levers 7, 8, and 9 were sleeved normal. Sidings B and C were abolished sometime in 1987 and levers 10, 11, 12, 15, and 16 were sleeved normal. Official abolition of the pointwork occurred on 7 August 1988 when all points were abolished. Post 36 (Disc 14) and Discs 15 and 16 (Post 35) were removed. Levers 6-12 and 13-16 were sleeved normal. These levers were still in the frame for the SRS visit in April 1990, but were subsequently removed.

The first sign of the resignalling was the erection of a headless post at the Down end of the Down platform by February 1998. On the 1 March 1998, the new post at the Up end of the Up platform was installed. As this was located in front of Post 37, the existing post was removed and a two position light signal was provided on the new post. This was in addition to the 3 position head and marker light which were turned off to the side. Automatic signalling replaced Double Line Block working to Brunswick on the weekend of 3/4 October 1998. Posts 34 and 35 were abolished. The light two position Up Home on Post 37 was removed and the three position heads commissioned. The post was renumbered COB 434. Levers 21, 22, and 23 were sleeved normal. The boom barriers at Moreland Road were converted to automatic operation and the mechanical wickets replaced by motorised wickets. An annunciator was provided in the signalbox to announce the approach of Down trains. Resignalling was completed a fortnight later on 17/18 October 1998 when automatic signalling was brought into use on the Down side of Moreland. The last three mechanical posts were removed and the signalbox abolished.

COBURG

The line to Coburg was opened on the 9 August 1884. At this time Coburg was a village on the very edge of Melbourne. The population (probably of the whole shire) in 1886 was 1630, and its major claim to fame was the Pentridge stockade which could accommodate 722 convicts. It had two hotels - the Pentridge and the Golden Fleece and two banks. To the north there was no town or village until Donnybrook (population 180); Craigieburn was so small that it was not even mentioned. The district to the north appeared to be primarily used for growing hay and grazing.

Initially Coburg was only opened for passenger traffic and it is likely that only a runaround loop was provided with a single Down Home. The construction plans for the line show that hand gates were provided at Reynard Road and Gosling Lane (Munro street). Coburg was a staff station, the section being Brunswick - Coburg, but not a block post. By January 1887 Single Line Block working had been superimposed on the Staff section, though the block was not worked on Sunday as only one train was on the line at any one time.

There were initially eleven passenger trains per day. An additional early morning train and three additional late evening trains were added from 1 October 1884. The service increased by an additional five daily trains on 1 September 1885, a further two on 1 April 1886, and a further one on 3 November 1886. Throughout the 1880s the traffic statistics in the Commissioners Report showed a little over 200,000 outward journeys per year. The 'Maldon' style station building on the Up platform were built by Robertson & Stewart. The erection contract was dated 9 September 1887 and the contract price was £1818/17/9.

In the Government Gazette of 23 August 1886 it was noted that Coburg was now open for goods in truck loads. At least one goods loop would have been provided by this time. In preparation for goods traffic, a contract had been let to J. Malone on 7 May 1886 for the formation (etc) of an approach road for £507/14/9 on 7 May 1886. By the January 1887 WTT, there was one regularly scheduled train which shunted from 1333 to 1356, and a conditional train which shunted from 1430 to 1445. Goods traffic during the 1880s fluctuated from 4,000 to 8,000 tons inward and around 5,000 tons outwards.

Extension to Somerton

The extension from Coburg to the NE main line at Somerton was opened on 8 October 1889. The extension was one of the lines of the 1884 'Octopus' Act and was primarily built to service speculative housing subdivisions north of Coburg. Initially, the railways put on a reasonable service to encourage housing construction with 16 of the 30 daily trains running beyond Coburg, though not all ran all the way to Somerton.

The single line was worked by Train Staff and Ticket; the section being Coburg - North Coburg (now known as Merlynston). Around 1890 it was recorded that the Moreland staff was of No 3 Pattern with blue ticket boxes, while the North Coburg staff was No 2 Pattern with red boxes. By May 1892, and probably from opening, Single Line Block was superimposed on the Staff sections.

It appears that the alterations at Coburg for the extension were minimal. The line probably continued on from the original stop blocks and an Up Home and a set of gates at Bell street would have been provided. The yard almost certainly had four roads by this date.

The opening of the Somerton extension caused a drop

of 21,000 passengers at Coburg for the year 1889/90. As Bell Park (Batman) and North Coburg (Merlynston) had a combined traffic of 21,000 in that year, it is clear that the missing passengers were simply transferring to a closer station. The following year saw a further drop of 16,000 passengers at Coburg, and this was partially offset by an increase of 10,000 passengers at Bell Park and North Coburg.

The line between Brunswick and Coburg was duplicated on 20 December 1891. Very little change was probably made to the layout for duplication. The yard was interlocked six months later on 5 May 1892. The signalbox was probably situated on the platform and contained a 31 lever frame (6 spare). The box appears to have been secondhand (no contract for erection is known); this could account for the delay in interlocking. The signal diagram shown has been pieced together from an 1899 list of signals and the details in the Interlocking Register. The weekday timetable in service in May 1892 showed 25 passenger service that to Coburg of which 11 continued onto North Coburg or Somerton. As for goods services, there was one daily service to Somerton which ran in the early morning, a daily service to Coburg which ran in the evening, and three conditional Coburg goods. The line also had two Down through NE goods trains (one conditional).

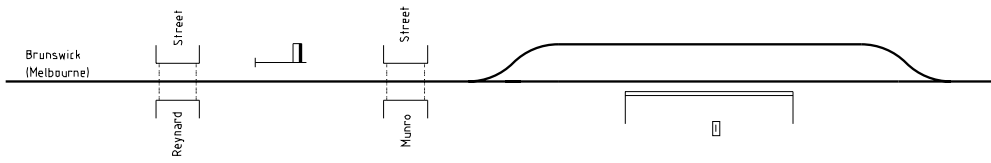
On 22 March 1893, North Coburg and Campbellfield were closed as Staff stations, the section then becoming Coburg - Somerton (No 2 Pattern Staff, Red Box). The block instruments north of Coburg were probably also removed at this time; they had certainly been abolished by 21 May 1894. By May 1894 WTT there were only 5 daily passenger services beyond Coburg, but the service to Coburg was largely unchanged. The Coburg goods service was also largely unchanged from 1892: one daily service to Somerton, five conditional services to Coburg, and the two NE goods (one conditional).

On 25 November 1895 Tablet instruments (No 5 Pattern) replaced Staff and Ticket on the Coburg - Somerton section. Tablet working would have been far more convenient; particularly with the NE goods trains which only ran in one direction and varied from one to two trains per day. However, it is not surprising that by December 1896 the goods service was completely recast. The Somerton goods had been extended to terminate at Seymour and ran with a car attached. The corresponding Up service originated at 0800 and was also routed via Coburg. These two goods services served all goods traffic at Coburg as well.

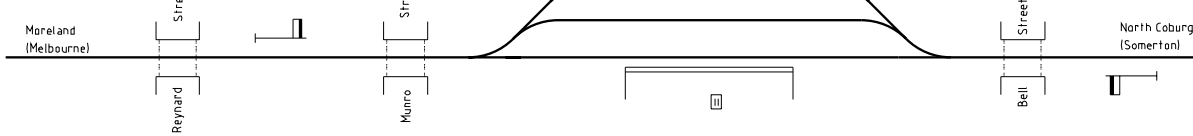
The railways resumed publishing detailed traffic statistics in 1895/96. In that year, passenger traffic at Coburg had built to 300,000 per annum. This was partially at the expense of the stations further north; Bell Park and North Coburg together could only muster 1,000 journeys between them. Clearly passengers preferred to make their way to Coburg rather than use the very restricted service at their own stations. The rest of the increase was, no doubt, due to renewed building activity and passenger traffic at Coburg continued to climb in subsequent years, reaching 500,000 in 1901/2. The next two years saw a sudden collapse, patronage at Coburg falling to 329,000 in 1903/4. This fall was especially curious as this marked the closure of the line beyond Coburg and you would have expected patronage at Coburg to increase. Patronage at Coburg resumed its steady climb in 1904/5, reaching 528,00 in 1906/7, 800,000 in 1910/11, and 1,061,000 in 1914/5.

Tenders were called for the erection of a timber footbridge on 22 January 1897.

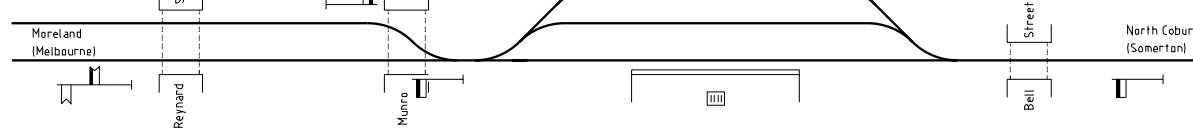
1884
Possible Layout



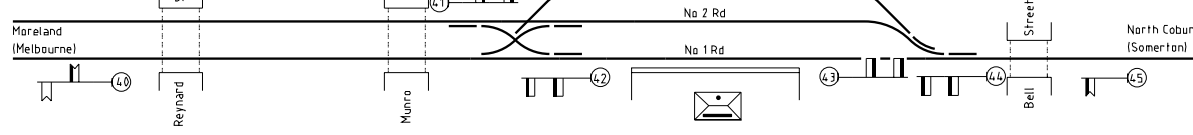
1889
Possible Layout



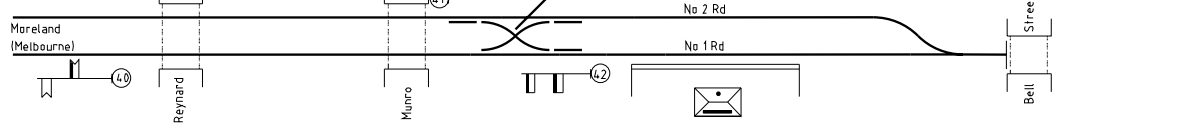
1891
Possible Layout



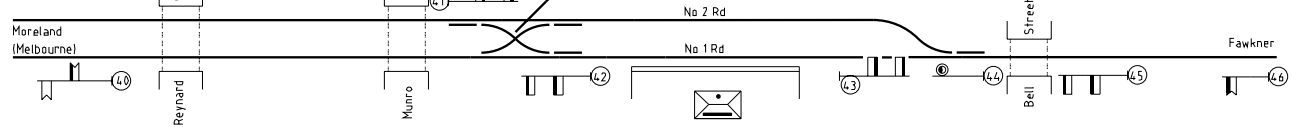
1892
Based on WN 52/00 & IR



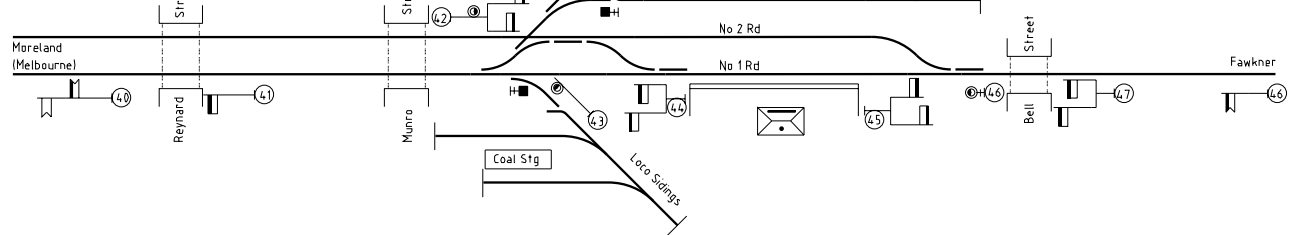
1904
Based on WN 15/04 & IR



1906
Based on WN 46/06 & IR



1911
Based on WN 47/11, 18/28 & IR



In September 1900, permission was given to trail two carriages behind the van of Down suburban trains between Coburg and Somerton. The Guard had to ride in the last compartment of the trailing carriage.

The 1902 GA noted that the Signaller could not give 'Line Clear' for a Down train until the Guard had indicated

that the train was complete.

In 13 May 1903 a contract was let for the erection of a 5000 gallon combined tank and crane. The tank was erected by F. Long & Co for £268/13/7.

The Somerton line was closed to all traffic on 13 July 1903. The May 1903 WTT showed 28 daily passenger trains

to Coburg, still with 5 being extended beyond Coburg. There were one Down and on Up NE goods train which would have performed any shunting required. In addition there were 2 conditional NE Goods and 2 conditional Somerton goods shown.

The Somerton line was left intact for nearly a year. However, on 6 April 1904 the interlocking was removed from the Down end of Coburg. Posts 43, 44, and 45 were abolished and the points at the Down end were converted to hand operation with the points in No 1 Road weighted to lay for No 2 Road. Eleven levers became spare in the frame. No alterations were made to the Up end of the yard. It is assumed that the line was baulked at Bell street, with the gates secured across the line.

Fawkner Cemetary

The line north of Coburg was to remain dormant for three years. From either 1 or 10 December 1906 the line was reopened to a new station at Fawkner Cemetary. Only one train a day was provided which ran from Flinders Street (Mortuary Platform) to Fawkner and return. The line was worked by Train Staff and Ticket, probably a No 1 Pattern Lock Staff. The sections were Coburg - Fawkner. Later Staffs were labelled 'Fawkner Cemty' and 'Fawkner Park'.

In preparation for this service, the interlocking was restored at the Down end on 13 November 1906. In the restored layout, only a connection to No 2 Road was provided at the Down end. A disc was provided at the points to allow a shunting engine to run around the train without needing to enter Fawkner section. This disc was ignored by trains arriving from the Fawkner line past Post 45. The frame was rearranged and eight levers at the left hand end of the frame were boarded over (since the spare levers were those that formerly worked the points at the Down end of the yard, this suggests that the frame faced away from the track).

On 10 January 1908 a set back disc was provided on Post 41 applying to movements from the Up Main line to No 1 Road. As this move was made every time a train terminated at Coburg the provision of this disc could be viewed as overdue. In the middle of January 1910, the rules for accepting Up trains were modified. Henceforth, Up trains could be accepted under Rule IV provided there was a clear line on either No 1 or No 2 Roads to Post 43 (the Down Departure Homes). The distance between Post 41 and Post 43 was around 300 yards and this allowed trains to be accepted from Moreland while the run-around was occupied by a locomotive. Note that the distance between Post 41 and Post 45 was probably around 450 yards, and so Down trains could always have been accepted while a train was on the Fawkner line.

The December 1909 WTT showed that there were 35 daily passenger trains to Coburg, still with one train each day continuing to Fawkner. There was one daily goods which arrived at 1242 and returned at 1342, and a second conditional goods which arrived at 1530 and returned at 1635.

The 19 November 1911 the signalling at Coburg was overhauled. The existing signalbox and frame was replaced by a new 30 lever frame (6 spare) in a signalbay. Brickwork in the pit suggests that the bay was located at the southern end of the station building. New locomotive roads were provided on the Up side of the line between the platform and Munro Street. Tenders had been called on 15 March 1910 for the erection of an engine shed, but no contract for its erection has been found. The loco roads did include a coal stage with an elevated road behind the stage. The 1921 Rolling Stock Book of Instructions noted that the coal stage

was 45' by 20' with a capacity of 100 tons of coal when stack 5' high. At the same time it appears that the connections at the Up end were altered to remove the scissor crossover. Point indicators were attached to the catch points in Nos 3 and 4 Roads. Virtually all the posts were renewed as bracket posts (note that Posts 44 and 45 had higher arms from No 1 Road), while Post 44 was renewed as a ground disc. An Up Starting signal was also provided. On 6 June 1912 additional disc signals were provided. A ground disc was provided to control moves from Nos 3 and 4 Roads to the Up line. Two additional disc signals were provided on Post 42. The three discs now read to Nos 3 or 4 Road (top left), to No 1 Road (bottom left), and to the Loco Roads (right). These discs were subsequently rearranged in the middle of August 1913; the discs now read to Nos 3 or 4 Road (left), to No 1 Road (top right), and to the Loco Roads (bottom right). Note that there was no signal applying from the Up line to No 2 Road.

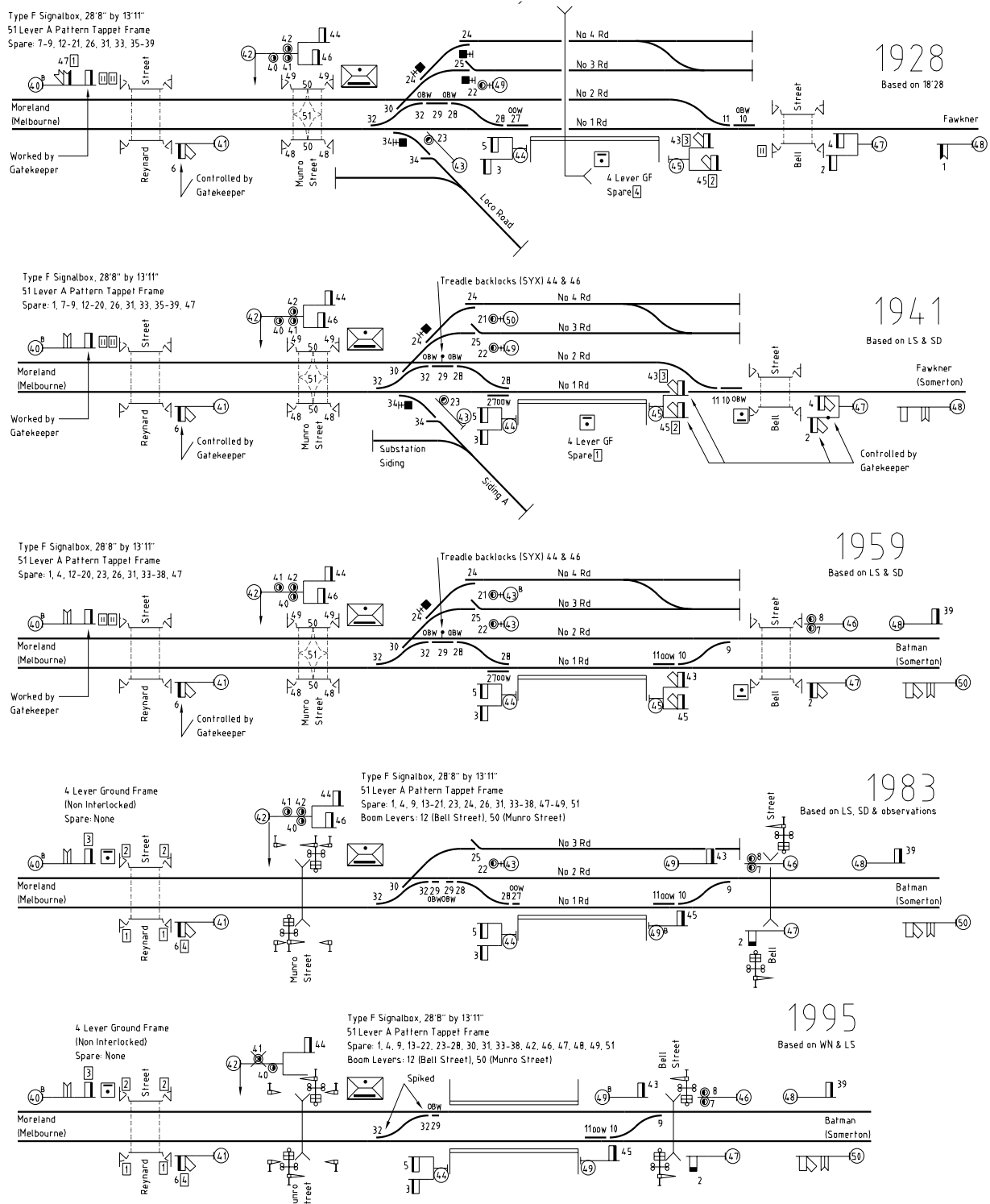
The December 1913 WTT shows that there were now 41 passenger trains to Coburg each weekday, still with one train continuing to the cemetary. The last Down train stabled at Coburg overnight and formed the second Up train the next morning. A feature of this timetable were the two empty car trains that ran in the early morning from Spencer Street to form Up services. In the evening there were no empty car trains, but one train ran express to Spencer Street; which served the same purpose. A second feature was the concentration on peak hour services. Of the 41 daily trains, just over a third (16) departed Coburg before 0900, just under a third arrived at Coburg between 1524 and 1900, leaving the remaining third to cover the remainder of the day.

A suburban service was finally re-instated to Fawkner on 1 October 1914. The December 1916 WTT shows that there were 40 passenger trains to Coburg each weekday; with a mere 7 trains to Fawkner. One train, presumably with its engine, stabled at Coburg overnight. This train was the last Down each evening and continued on to Fawkner the next morning to form the first Up Fawkner. There was one daily goods which arrived at 1220 and returned to Melbourne at 1322. Restoration of the service beyond Coburg saw a fall in passenger traffic at Coburg itself; from 1,061,000 in 1914/5 to 1,047,000 the next year (the loss being balanced by the passengers from Batman and Merlynston). Traffic fell to 885,000 in 1917/8 before beginning an upward trend due to post war subdivision.

In early December 1918, the Down Distant was removed from Post 40 to a new Post 40B on the opposite side of the track.

Electrification

The electric train service between Melbourne and Fawkner was introduced on 2 December 1921. The new timetable was far superior to the steam service. In December 1924 there were 81 trains daily to Coburg (double that in 1916), while 33 of these trains continued on to either Merlynston or Fawkner (quadruple that in 1916). Unlike other suburban line where the initial generous level of service was reduced in the late '20s, the Coburg line retained these service levels throughout the depression. In June 1936, for example, there were still 77 daily trains to Coburg, with 37 continuing on to Fawkner. Passenger figures at Coburg were above 2,000,000 journeys per year for the later half of the decade, albeit falling from 1926/7 after the Sydney Road tram was electrified. Patronage was around 1,600,000 for most of the depression and, curiously, declined to 1,343,000 in 1938/9 just as the depression was ending. None-the-less, patronage at Coburg during the thirties roughly equalled the combined total of South Brunswick, Brunswick, and Anstey. No doubt



this reflected the greater competition of the electric tramway over shorter distances.

During the twenties the regular goods service ran after the passenger traffic had ceased. The December 1924 WTT shows the daily goods arrived at Coburg at 0150 and was scheduled to return to Melbourne at 0230. During this time, a switch trip to Batman was made, if required, to serve the Lincoln Knitting Mills siding at Batman which had opened in October 1920. A second, conditional, goods train ran during the day and arrived at 1105 and returned to Melbourne at 1205. Goods traffic in the late twenties and early thirties was between 25,000 and 30,000 tons inwards annually and a little less than 2,000 tons outwards. During the depression, this fell to around 18,000 tons inwards and

1000 tons outwards annually.

Running the goods service at night required the gates and signalboxes to be almost continuously staffed. In the middle of January 1922, the gates at Reynards Road were made privileged (i.e. they could be secured across the railway after the passage of the last train) and an assistant guard was provided to work the gates at Reynard's Road, Bell Street, and O'Heas Road (if running to Batman). From January 1928, the Signaller at Moreland normally travelled to Coburg with the goods and relieved the Signaller there. The Moreland Signaller worked Coburg until the goods returned to Melbourne or was relieved by the SM coming on duty for the passenger traffic.

In the thirties, the goods train reverted to daytime

running. As mentioned in the article on Moreland, this probably occurred around February 1931 when permission was granted to run without a brakevan at the rear between Moreland and Coburg (20 vehicles maximum) and Coburg and Batman (15 vehicles maximum). Around April 1932 this permission was extended to goods trains running during darkness. By June 1936, one daily goods train was scheduled and this shunted Coburg from 1624 to 1900, or perhaps 'kept out of the way' would be a better description of its activities during that time. By 1939 the goods was running slightly earlier and now arrived at Coburg at 1305 and returned at 1540.

On the signalling front, controlled wickets and protecting signals were provided at Reynard Street on 18 January 1923. On the Down, a Home signal was provided above the Coburg Distant on Post 40B. On the Up, the gatekeeper was given control over the Up Starting signal on Post 41.

In 1927 parliament approved the expenditure of £4654 for the interlocking of the gates at Munro Street. This eventually took the form of a brand new brick signalbox situated adjacent to Munro Street and working interlocked gates. The brick Type F box was brought into service on 30 September 1928 and contained a 51 lever A pattern frame with no less than 21 spare levers. No explanation for the provision of such a large frame is known, but the VR was under considerable pressure at the time to provide an island platform at Coburg and it may be that the signalbox was designed to accommodate this if it ever eventuated. Because the new box was situated at the Up end of the yard, the Signaller could no longer personally carry out the Staff and Ticket working. This responsibility was delegated to the station staff and a small, non-interlocked, ground frame was provided on the platform to control the Down Home signals on Post 45 and the Down Distant signal on Post 40B. The only other signalling alterations associated with the new signalbox appears to have been the removal of the ground disc Post 46 (largely redundant since electrification) and the relocation of Post 42 to a new position south of Munro street 63 yards further out. The later alteration took place on 18 July 1928.

In November 1929 standard instructions were published on the shunting of electric trains at various stations. At Coburg, staff were instructed that when it was necessary to shunt a train from the platform to allow a the passage of a Down Fawkner train, the shunting train was to be pushed (i.e. driven in reverse with the Driver at the north end) to the Up line between Posts 41 and 42. When the Down Fawkner train had departed it was to be redocked by driving it into the platform. Similarly, when stabling a train in No 2 or 3 Roads, the train was to be pushed to the Up line and then driven into the siding. When docking a train, it was to be pushed from the sidings and then driven into the platform, although, in emergency the train could be driven from the sidings and pushed into the platform.

An automatic 1500 kW substation was provided at Coburg in 1932-3. Brought into service on 28 November 1932, it was primarily built to reduce the effects of electrolysis of current returning to the substation at North Fitzroy and it also had the beneficial effect of reducing the voltage drop on the section to Fawkner. The single remaining Loco Road now served as the substation siding (the coal stage and road had been removed by 1928).

In late September 1934, instructions were issued that whenever it was necessary for a train or engine to shunt past Post 45 while the Fawkner Staff was not at Coburg, the person in charge of the Staff working had to instruct the Driver not to pass Post 47 before clearing the Home signal.

Bell communication was provided to Batman on 18 April 1935 in conjunction with the provision of interlocked gates at that station.

The gatekeepers at Bell Street and O'Heas Road gained signal protection in 1940. In conjunction with this, Post 48 was relocated 66 yards further out (on the north side of O'Heas Road) on 27 August 1940. Both Distant signals were fixed on 27 November 1940, and in early December the gatekeeper at Bell Street gained control of the Home signals on Posts 45 and 47.

On 19 September 1941 an additional ground disc (21) was provided to control movements from No 4 Road. Ground disc 22 henceforward only controlled movements from No 3 Road, and the point indicator on Catch 24 was removed.

In October 1941 bell communication was provided to the Reynards Road gatekeeper.

On 7 March 1944 the discs on Post 42 were re-arranged a second time to finally provide a signal applying to movements from the Up line to No 2 Road. A bottom left hand Disc (41) was provided to apply to No 2 Road. The bottom righthand disc was removed, and the top righthand disc (40) now applied to either No 1 Road or Siding A.

Post War

After World War II, the service was initially unchanged. In February 1950 there was still a 15 minute off peak service to Coburg with every second train extended to Fawkner. Immediately after the war, Coburg record a little under 1,600,000 passenger journeys annually and this actually increased to 1,650,000 in 1949/50. Traffic then crashed within two years to 917,000 and then slowly drifted downwards. In 1965/6, the last year traffic were published passenger journeys had fallen to 547,000; one third the level of sixteen years earlier.

Inwards tonnages fell from 21,450 immediately after the war, but generally remained between 10,000 and 15,000 tons annually until traffic returns ceased to be published. Outwards tonnage was negligible. In 1950 there was still a daily goods which arrived at 1305 and departed at 1540. Batman was still served by a switch trip. The daily goods train was a feature of timetables for the next quarter century. By November 1959, it had been rescheduled to run in mid morning and the switch trip to Batman was explicitly scheduled to run on Tuesdays. By the '70s the goods ran just before the morning peak.

On 16 September 1948 bell communication was provided to Bell Street and O'Heas Road. Down trains were belled on by Coburg and Up trains by Batman.

On 24 November 1957 Siding A (the former Loco Roads) was abolished. Post 43 was abolished, as was levers 23 and 34. Someone must have been asleep as it was not until September 1958 that the Substation Siding was formally abolished.

The year 1959 marked the duplication of the line to Fawkner. The overhead over the turnout to No 2 Road at the Down end was abolished on 21 June 1959 and the duplication was brought into service on 19 July 1959. The only changes at Coburg were at the Down end. The new Down line was an extension of No 2 Road. No Down platform was provided, so a trailing crossover was provided to allow Down trains to regain the Down line after stopping at the platform. A Down Advanced Starting signal was provided (Post 49) to allow trains to shunt on the Down line beyond Bell Street. The Train Staff and Ticket section Coburg - Fawkner was replaced by a Double Line Block section Coburg - Batman. A ratchet wire adjustor was provided for

the Down Advanced Starting signal on 8 March 1961 as the post was 1959 feet from the signalbox. The WTT for November 1959 shows that all passenger trains had been extended to Fawkner. The last two Down trains still stabled overnight at Coburg, returning from Fawkner to Coburg after completing their last run, and running back out again the next morning to take up the second and third Up trains.

In July 1962, Coburg was shown as being open for inwards goods of any description, and outwards goods in truckloads loaded for one destination on which a minimum freight charge of 6 tons applied. Coburg had a 6 ton electric crane, and a 10 ton private cart weighbridge.

The hand gates at Bell Street were replaced by manually controlled Boom Barriers on 29 November 1962. The booms were worked manually by lever 12 for Down or shunting trains, and automatically by track circuit for Up trains. In preparation for the installation of the booms, Post 46 had been relocated 30 feet further out on 30 September and was probably converted to a motor signal at the same time.

On 19 September 1963, a 4 lever non-interlocked ground frame was provided at Reynards Road, replacing 2 small levers (working the wickets) and 2 quadrants (working the signals). This probably also marks the erection of the galvanised iron gate cabin that served the Reynards Road gatekeeper until the end of mechanical signalling.

Early 1969 saw the renewal of the crossover work at the Up end of Coburg. The trailing Crossover 32 was renewed on 22 February and Lockbars 27 and 29 were replaced by track circuits and lever locks. The treadle backlocking the Down Home signals was probably removed at the same time. The facing crossover (28) was renewed on 16 March.

Bracket Post 45 was relocated 8 feet further out on 20 June 1971. On 8 July 1973 the bracket post was replaced by two new straight masts. The new Post 45 (Home 45) was 106 feet further out, the new Post 45B (Home 43) was 56 feet further out. The difference being a graphic example of the room a lockbar takes up; Post 45B had to be located in the rear of Lockbar 11, while Post 45 was located at the fouling point near the toe of Points 10U.

Rundown

The goods yard was closed in the middle of July 1978. As a consequence of the closure to goods traffic, No 4 Road was abolished on the 2 November 1978. Points 24 and Ground Disc 21 (Post 43B) were removed and levers 21 and 24 became spare.

On the 8 June 1983 the interlocked gates at Munro Street were replaced by Boom Barriers. The booms were manually controlled by lever 50 (the former gate stop lever). Levers 47, 48, and 51 became spare. The gatestops, incidentally, had been renewed less than three years earlier, on 31 August 1980. The gatestops were left in the roadway when the gates were removed, and, in fact, are still there.

On 23 February 1990 a lever lock was provided on Lever 2 to prevent the lever from being restored to the full normal position until the motorised Home signal has been proved at Stop. This was provided after an embarrassing incident when the Home failed to return to Stop automatically and Signalman, failing to check, made the road for a Down train. It was, however, noticed by a Block Working Inspector who promptly suspended the Signalman. Unfortunately, the Blocko then committed a safeworking irregularity himself and was himself suspended. A relief signalman was found, but was to arrive by train. The train, of course, could not approach Coburg as there was now no Signalman on duty. Heads were scratched and the train permitted to approach under Rule 31 of the Double Line Block system.

No 3 Road was booked out of service on 19 October 1992. Levers 22, 25, 30, and 42 were sleeved normal. The road was not actually removed until 23 June 1995 when construction of a Down platform was commenced (Disc 22 and Catch 25 were duly booked out of service for a second time on this date). The second platform was brought into service on 11 September 1995, ending the venerable practice of Down trains snaking over Crossovers 28 and 9/10. It is unlikely that the provision of the new platform was welcomed by travellers. The Up platform was convenient to the shopping centre and had a proper station building with staff. Access to the new Down platform required travellers to cross the line at Bell Street and then walk a further 70 metres to an unsheltered platform (generously, a 'Cranborne' style shelter has since been provided).

At almost the 11th hour Homes 3, 5, 44, and 46 were electrified in late February 1996. Discs 40 & 41 remained lit by oil.

On 5 July 1996 the Down Advanced Starting signal, Home 39, was abolished. This, in theory, saved the signalman a long pull for every Down train. In practice, however, many signallers simply appeared to leave the arm off. Abolition of this signal meant that any train shunting on the Down line would have to be offered to Batman and then cleared. Of course, trains shunting at Coburg at this date was a very rare occurrence.

The pointwork at the Up end was renewed on 13 April 1997. The existing points (Crossovers 28 and 32, Points 30, and Catch 25) were removed and a new trailing crossover, spiked normal, was provided slightly closer to the signalbox. Home 46 and Discs 22 and 42 were removed. Plungers 27 and 29 were removed. Levers 5, 22, 25, 28, 30, 32, 40, 41, 42, and 46 were sleeved normal. Levers 27 and 29 officially became pilot levers, but in practice would have been left reverse. On 20 April, the new trailing crossover was connected to the interlocking frame as Crossover 32 and Plunger 29 was provided on the Down end of the crossover. The crossover remained spiked. Disc 40 was returned to service on 19 January 1998 to allow pilotman working over the Up line between Royal Park and Coburg over the following weekend whilst the Manningham Road underbridge (between Flemington Bridge and Royal Park) was replaced. At Coburg, Down trains used Crossover 9/10 to return to the proper line, and the pilotman changed trains at Bell street. This was probably the last use of Crossover 9/10 as the overhead over the crossover was removed on 8 February and the crossover was abolished on 23 August 1998. Abolition of the crossover resulted in Home 45 being fixed at Stop and the removal of Lockbar 11 and but Post 46 with Discs 7 and 8. Levers 9, 10, and 11 were sleeved normal. At the Up end of the yard, Crossover 32 and Plunger 29 were brought into service on 3 June 1998. Home 5 and Disc 41 were also brought back into use on the same date. It is believed that this signalling was only used once, on Saturday 3 October 1998, when buses replaced trains south of Coburg due to resignalling work between Brunswick and Moreland.

The mechanical signalling was abolished on the weekend of 17/18 October when automatic signalling was brought into use between Moreland and Batman. The signalbox was abolished, and Coburg is now worked by an SSI located in a 'relay' room situated behind the Down platform. The SSI is controlled from a panel at Upfield. Coburg is normally switched out, and is only switched in when trains are terminating at Coburg. This has already occurred at least twice, the latest occasion on 25 April 1999 when busses replaced trains between Coburg and Upfield.

LETTERS TO THE EDITOR

Chris Wurr writes:

A subject which has had Trevor Penn and I perplexed for some time now is the famous Post Y at Maldon Junction - the only two-armed Repeater the V.R. ever had. We have done a lot of research into this and still have not come up with an accurate answer. It all revolves around the colour of the semaphore arms.

Where it all began was the photo on the back cover of *Clear Normal Speed* by John Sinnatt, (ARHS, 1966). It shows (very indistinctly) what appears to be a red A arm with a white chevron and the B arm appears to be yellow with a black chevron. Given that it is a black and white photo, we presume these to be the colours. The photos are credited to Charles Craig, so I wrote to him asking about this particular shot. He replied that he had been asked to take some photos to go with the book, but that the shot of Post Y was not his and that he did not know where it came from.

Trevor has unearthed, in the ARHS Archives at Windsor, an actual photographic print of this particular shot (as against a photo copy) which clearly shows the A arm is different to the B arm, i.e. the A arm appears to be red with a white chevron. The print is in a collection of signal photos whose origin, Ian Barkla, the Archivist, claims is unknown. This despite the fact that he has claimed it as part of the Ian R. Barkla Collection, as verified by his official rubber stamp on the back!

I have spoken to Jack McLean and Bob Whitehead about this subject and in particular this photo. One suggestion was that perhaps it was from the lens of the late Les Poole, however, from what I know of Les, it would seem unlikely. We are wondering, given the likely age of the shot and others in the same collection (viz. non-balanced semaphore Home at Tyabb, etc) if it may not be from the camera of the late C.D. Gavan-Duffy. At any rate, it would appear that whoever took the photo, is now most likely no longer with us and therefore unable to be asked when it was taken. In the same photo collection are two different shots of Post Y with two yellow arms, presumably taken at a later date.

Trevor has, for the last few years, been painstakingly going through each and every photo in the PTC Photographic Collection. It appears that in 1926, when all was brand spanking new at Maldon Junction, the official V.R. photographer was despatched there, with instructions to photograph EVERYTHING in sight - which he dutifully did. However, there is NO photo of Post Y. Trevor and I can only conclude that the negative has been stolen. It would seem impossible that Post Y was not photographed at that time, when everything else *was*.

So now we are back to square one. Researching all known documentation on the subject. Jack McLean claims that the arms on Repeating signals were always yellow, but this photo obviously shows otherwise.

Going right back to the beginning, C 8/15, the original instructions for three-position signalling, describes Repeating signals as follows:-

- (e) A **Repeating Signal** is distinguished in the day time by having a fish-tailed arm, as in the case of the Two-position Distant Signal, and at night by its combination of lights, as shown under clause (6).

Then later:-

- 6. Repeating Signals.**- (a) The Repeating Signal is erected at some distance from the point at which the first Automatic or Interlocked Three-position Signal is placed, and occupies a similar position in respect to such Signal as the present Distant Signal occupies

in respect to the manually-operated Home Signal. The Repeating Signal denotes the entrance to the Tree-position Signalling area, and also indicates whether the Signal next in advance is at Stop or Proceed.

(b) The lower or marker light on the Repeating Signal always shows Yellow. The upper lamp shows Yellow or Green according to whether the Signal next in advance is at Stop or Proceed. See aspects 29 and 30, under sub-clause (d).

(c) The Caution Repeating Signal does not in any case indicate that the Line ahead is clear; it must not, therefore, be regarded as affording any protection.

Where the exit from a Goods Yard is governed by Three-position Signals, the Repeating Signal may be erected some distance back on the Goods Line. The Caution Repeating Signal does not indicate that the track between it and the next Signal is unoccupied, and Drivers must proceed at a reduced speed, prepared to stop short of any obstruction that may exist between the Repeating Signal and the Signal next in advance.

(d) The Aspects and Indications of Repeating Signals are as shown hereunder:-..."

Throughout the entire document, there is no mention made specifically of the colour of the arms of any of the three-position signals, it merely describes their shapes. I presume this is because at that time ALL semaphores were red with a white band or chevron and it may have been deemed unnecessary to specifically mention it. So, does this mean we can conclude, by virtue of omission, that Repeating signal arms were red?

The next reference I have in connection with Three-position signalling is WN 37/15 which (according to Jungy & Lambert's book) states that "All 3 pos arms will be painted yellow." According to J.M.McL., this was actually proposed, but never carried out, rather than a mistake in the W.N. Next is WN 48/17 which announces "Amendments to C 8/15 a/c Repeating Signals". I would love to see a copy or transcript of this, to see exactly what it says. WN 53/17 then says "Canc entry 37/15, All semaphore arms will be red with white bar, back will be white with black bar."

Along comes reference to C 14/26 "Rules for the Automatic System of Train Signalling on a Single Line Section, and Remote Control of Points and Signals at an Unattended Junction" in WN 43/26. This booklet is always cited in official documentation as being the *bible* in regard to Maldon Junction, and yet Maldon Junction gets no mention whatsoever in it. There is scant mention of Repeating signals.

Remote control of Maldon Junction starts on 18/11/26 (with red Repeaters?) only about nine weeks after commencing testing yellow arms on Distant (21/9/26).

By 10/6/30, Distant arms had all been converted to yellow, statewide. There is no specific reference to Repeating signal arms being similarly treated, at least as far as the reference in "Jungy's" book goes.

And lastly, 4/3/52 saw the abolition of three-position signalling at Maldon Junction and, of course, the demise of Post Y.

So, let's say Post Y started out with two red arms, and documentation does not indicate otherwise. I wonder when it received the first yellow arm? At the time of conversion of Distant?

The next vexing question is why only one arm converted initially?

Picture the scenario. Instructions come out that the arms are to be changed to yellow. If the District Fitter was issued with three yellow arms for Maldon Junction, then I guess they would have all been changed over. One on Post X and two on Post Y. If he had been issued with two yellow arms, why would he have changed one on Post Y and the other on Post X, rather than both of them on Post Y for the sake of standard conformity? And if he only received one yellow arm, why would Post Y have copped it instead of Post X?

During tea and bikkies after the February meeting, I showed around the photographic print and phot copies of the other photographs of Post Y and the relevant pages from C 8/15, but nobody there could shed any light on the conundrum at all. Indeed, one member appeared to be getting confused by the fact that because a Repeater displayed yellow lights, that they must have had yellow arms - the same as Distant before conversion!

Trevor and I have researched this topic as far as we can, given our resources, and we are now hoping that some other

member/s may like to take up the investigation and finally put the matter to rest.

A good question! I haven't got any Weekly Notices for 1917, but can state that WN 44/28 notified the conversion of the Up and Down Main Line Distant at Castlemaine A to yellow arms on 4 October 1928. No mention of the Repeating signals. As to why only the B arm on Post Y was converted, I have a theory. The Rulebook, following C 8/15, made no provision for a working B arm on a Repeating signal, despite there being several such (light) signals in existence in addition to Post Y at Maldon Junction. I suspect that when Maldon Junction was to be converted, someone in Head Office assumed that two new A arms would be required (one each for Post X and Post Y) and that the B arms were fixed yellow marker lights. When the fitter received the two arms, he replaced the two working arms (upper arm on Post X, and lower arm on Post Y). This left the fixed A arm on Post Y red until a new arm could be ordered, manufactured, and installed. The fixed A arm on Post Y always, of course, displayed a yellow light. But this is just a guess. Can any member fill in any details?

OBITUARY

ROGER JULIEN JEFFERIES

Roger Julien Jefferies, the Foundation Secretary of the Victorian Division of the ARHS died in a Melbourne nursing home on 28 September 1998. A Science graduate of Melbourne University, Roger began his professional life as a physicist in the Munitions Supply Laboratories at Maribyrnong. However, his abiding interest in railways, combined with his mathematical brilliance, drew him to the world of signalling, where he found employment in Government and private industry.

After an unlikely start as a clerk in the Refreshment Branch of the Victorian Railways, Roger and his wife, Lesly, moved to Brisbane where he joined the signalling section of the Queensland Railways.

His next move took him to Adelaide and an appointment in the Signals and Telegraph Branch of the South Australian Railways.

It was while living at Grange that Roger, homeward bound on the Henley Beach steam train, distinguished himself by taking over the operation of a local signal box without notice.

"Would you know how to work one of these things?" the Guard asked Roger, after the signalman was discovered unconscious on the floor.

When told to report to the Chief Signal Engineer in Adelaide station the next morning, the ever modest Roger murmured apologetically, "I hope I did the right thing."

The Chief Engineer instead thanked Roger for his prompt action and added, "The thing that intrigues me is that I didn't know anyone in this office could work a signal box!"

Moving to Sydney, Roger joined private industry as assistant to the manager of the Siemens and General Electric Railway organisation, much of his work being related to the design of traffic light circuitry and controls.

The many takeovers which disrupted the continuity of professional employment caused him to return to Melbourne.

He began teaching mathematics at Scotch College and later at Thornbury High School.

Forever being curious about life around him, he finally became an Usher in a Melbourne court room.

He was a member of the Institute of Railway Signal Engineers and also of the Signalling Record Society Victoria.

He joined the elite ranks of Mensa which gave full rein to his undoubtedly high IQ.

After suffering a severe stroke, he was confined to a wheel chair and he entered a nursing home, where he died on 28 September.

Predeceased by Lesly, he is survived by his sons, Mordecai and Richard, and his daughter Diana (Mrs Thompson).

His Requiem Mass was celebrated at St. Peter's Anglican Church, Princes Hill, Melbourne.

Delivering the eulogy at his father's funeral, Richard Jefferies said:

'I think it is impossible to talk about my father without mentioning his passion for trains, trams, and anything that ran on rails.

'Inevitably, he swept us up in his enthusiasm and our school holidays were spent on trains, as our father transported us to the most remote points of New South Wales - Bourke, Walgett, Nyngan, Cobar, Pockataroo and Balranald are just some of the exotic-sounding and evocative destinations that come to mind when I think about these childhood train trips to the outback: great adventures-real journeys into the unknown.

'His inquiring mind and intense interest in the world were his greatest gifts to us, his children.'

This obituary was written by David Burke and appeared in the February 1999 ARHS Bulletin. David and the editor of the Bulletin have kindly given permission for its reproduction in Somersault.

SIGNALLING ALTERATIONS

Continued from page 41

Permit to Foul the Line (2421), Metrol Absolute Occupation Form (2425), Permit to Work (526), Inwards Service Telegram (2339), Outwards Service Telegram (2343) and WOLO Advice Form.

SW 102/98 and SWP901 are cancelled.

(SW 1029/99, WN 11/99)

24.03.1999 **North Geelong Grain Loop**

On Wednesday, 24.3., the Home signal that formerly protected the Freezer Works Siding in the Grain Loop was abolished.

(SW 1035/99, WN 11/99)

26.03.1999 **Burnley**

Commencing Friday, 26.3., the illuminated letter A on Homes 380 and 381 were restored to service. SW 143/98 is cancelled. (SW 1050/99, WN 13/99)

28.03.1999 **Flinders Street**

On Sunday, 28.03., the heads on Home 575 were lowered and relocated to the right hand side of the post to allow the post to be shortened to clear the Federation Square decking.

(SW 1049/99, WN 13/99)

29.03.1999 **Ringwood**

On Monday, 29.03., the pointwork at the Down end was rationalised. Crossovers 47/48 (No 2 Track to Down Lilydale line) and 49/50 (No 3 Track to Sidings or Down Belgrave line) were equipped with point machines and are now worked by levers 48 and 49 respectively. Points 43 (junction of Up and Down Belgrave lines) were replaced by a new set of points immediately beyond Platform 2. These points will eventually be numbered 224. Points 51 (Up Lilydale line to No 2 or 2A Track) and the original Points 43 were secured reverse. Points 44 (to No 1 Track), Catch 42 (in No 2A Track), and Catch 44 (in No 1 Track) were abolished. Down Home 9 (RWD324) was replaced by a new Post on the left hand side of the line. Levers 5, 20-30, 33-37, 39, 42, 44, 55, 60, 62, and 65 are sleeved normal. Levers 47 and 50 became pilot levers.

Diagram 7/99 replaced 1/99.

(SW 1043/99, WN 12/99)

06.04.1999 **Traralgon - Sale**

After 8412 Passenger clears Traralgon on Tuesday, 06.04., the Train Order Working System between Traralgon and Sale will be replaced by Train Staff and Ticket System with the sections Traralgon - Sale.

Delete Operating Procedure 94 (Driver in Charge, Sale) and 95 (Issue of Return Train Orders, Traralgon - Sale). A new Operating Procedure 94 (Driver in Charge, Sale) is to be inserted. The Driver of 8431

Mondays - Sundays will be required to perform the signalling duties at Sale provided trains are not to cross. After arriving at Sale, the Driver is to restore the signals to Stop and remove the Annett key. The train is then to be shunted to the Annett locked passenger train servicing siding and secured. The Annett key and Train Staff are to be secured in the box provided in the Safeworking Office.

(SW 1045/99, WN 12/99)

12.04.1999 **Ringwood**

On Monday, 12.4., new point machines were installed on Points 46 (junction of Up Lilydale and Down Belgrave), 54U (junction of Stabling Sidings 1-3 and 4-6) and 56 (points to Stabling Sidings). New Derails and Crowdors replaced the existing Derails and Crowdors 52 and 54 in the Stabling Sidings. A single compound replaced the old Points 43 in the Up Belgrave line. This compound will be secured for the Belgrave line. All other abolished pointwork was removed. Amend Diagram 7/99.

(SW 1052/99, WN 14/99)