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## SOCIETY CONTACT INFORMATION

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## MINUTES OF MEETING HELD FRIDAY 17 MAY 2019, AT THE SURREY HILLS NEIGHBOURHOOD CENTRE, 1 BEDFORD AVENUE, SURREY HILLS, VICTORIA

- Present: – Noel Bamford, Glenn Cumming, Graeme Dunn, Michael Formaini, Chris Gordon, Judy Gordon, Andrew Gostling, Bill Johnston, David Jones, Keith Lambert, David Langberg, Neil Lewis, Phillip Miller, Colin Rutledge, Roderick Smith and Andrew Wheatland.
- Apologies: – Robert Bremner, Brian Coleman, Warren Doubleday, Chris King, David Langley, Steve Malpass, Andrew McLean, Adrian Ponton, Laurie Savage, Peter Silva, David Stosser, Leon Tirel, Stuart Turnbull, Frank Tybislowski, David Ward and Andrew Waugh.
- Visitor: – James Sinclair.
- In the absence of the President, the Vice-President Mr. Bill Johnston, took the chair & opened the meeting at 20:11 hours (8.11 pm).
- Minutes of the March 2019 Meeting: – Accepted as read. Phillip Miller / Michael Formaini. Carried.
- Business Arising: – Nil.
- Correspondence: – Notice of Special General Meeting sent to all SRSV members.
- Membership application form sent to James Sinclair.
- Phillip Miller / Graeme Dunn. Carried.
- Reports: – David Langberg provided an update on the work he has been doing configuring the new large format scanner and documenting the processes for scanning documents. Planning for the purchase of a computer to compliment the scanner is underway. Much discussion followed.
- General Business: – Phillip Miller provided a progress report for the works at Kananook. Track work for the new sidings is complete but overhead wiring has not yet been installed.
- Keith Lambert described a proposal to provide additional signals for the crossover at Elsternwick to be controlled from a signal control panel that was previously in use at Berwick. The crossover will continue to be worked mechanically from the ground frame and a plunger will be provided on the Up end of the crossover for Down moves through the crossover. It is understood that point machines cannot be used because the signal power supply is still 25 Hz.
- Keith Lambert noted that level crossing removal works at Cheltenham had commenced.
- The use of absolute occupations and “shutdowns” for infrastructure maintenance was discussed.
- Chris Gordon advised that the signal box at Darling would be abolished over the long weekend in June 2019 and will be replaced by remote control from Metrol.

*(Front cover). N451 with N set arrives at Swan Hill on the Down day Passenger train on 13 June 2016 and passes the mechanical Down Home signal. This was the last location on the non-preservation railway in Victoria where a traditional mechanical Home signal was regularly used – the use of locomotive hauled passenger trains meant that the signal had to be restored to stop to allow the locomotives to run around. Sadly, at the end of June, Swan Hill was resignalled and new light signals were installed. The plunger locking was retained and the new signals electrically detect the plunger locked points. Mechanical home signals remain in use at Meredith, Boort, Kerang, and Ouyen – at the first two locations the crossing loop is booked out of use, at the third it is only rarely used, and Ouyen is probably only used when it is necessary for a branch line train to operate or to shunt the yard. Photo Andrew Waugh*

Andrew Wheatland provided a progress report on the construction of the new signal box at Lakeside.

Michael Formaini reported on an accident on Hong Kong's MTR metro system in March 2019 when two trains collided on the Tsuen Wan Line. The collision occurred during testing of a new signalling system known as communication-based train control (CBTC).

Rod Smith advised that the new Sydney Metro Northwest line is planned to open on Sunday 26 May 2019.

Syllabus Item: – The Vice-President introduced Roderick B. Smith to present the Syllabus Item.

Rod presented the 29<sup>th</sup> annual screening of slides from the collection of the late Stephen McLean.

This year's presentation continued Stephen's first trip to North America in December 1981, accompanied by Rod Smith.

The slides showed views of Stephen and Rod's travel across Canada to Vancouver, then south along the west coast of the USA.

The presentation concluded with views of the RMS Queen Mary moored at Long Beach in Los Angeles.

At the completion of the Syllabus Item, The Vice-President thanked Rod for the entertainment & this was followed by acclamation from those present.

Meeting closed at 22:05 hours.

The next meeting will be on Friday 19 July, 2019 at the Surrey Hills Neighbourhood Centre, Bedford Avenue, Surrey Hill, commencing at 20:00 hours (8.00pm).

## SIGNALLING ALTERATIONS

*The following alterations were published in WN 13/19 to WN 26/19, and ETRB A circulars. The alterations have been edited to conserve space. Dates in parenthesis are the dates of publication, which may not be the date of the alterations.*

- (09.04.2019) Murchison East (SW 56/19, WN 15)**  
Commencing forthwith No 2 Road will not be available to cross trains. The Up and Down end main line points have been secured normal. No 3 & 4 Roads have been booked out of use.  
Murchison East is now an Intermediate Train Order Station and will be only available for follow on movements.
- 10.04.2019 Reservoir (SW 187/19, WN 13)**  
Between Wednesday, 3.4., and Wednesday, 10.4., the following alterations took place:
- Up Automatic T440 was provided with a co-acting signal T440P
  - Down Automatic T445 was provided with a co-acting signal T445P
  - Up Automatic T456 was relocated 23 metres in the Down direction
  - Down Automatic T457 was relocated 125 metres in the Down direction.
- Diagrams 7/19 (Northcote – Reservoir) & 9/19 (Ruthven) replaced 29/14 & 113/12 respectively.
- 14.04.2019 Metrol (SW 207/19, WN 14)**  
On Sunday, 14.4., the TCMS data at Metrol was updated. The principles changes were: the new axle counter track circuits at Flagstaff and Parliament; new track circuits (378T and 318T) at Olver St between Preston & Regent; new track circuit 760T at Richmond, and the removal of track indications for D69T and F69T at South Yarra.
- 15.04.2019 Preston -Regent (SW 206/19, WN 14)**  
On Monday, 15.4., circuit modifications were carried out at Over St pedestrian crossing to provide additional track circuit indications back to Metrol.
- 15.04.2019 Keon Park (SW 178/19, WN 13)**  
On Monday, 15.4., Points 001 were equipped with an SPX Mk3 Clamp Lock point mechanism.
- 15.04.2019 Epping (SW 179/19, WN 13)**  
On Monday, 15.4., Points 031, 048, 061, and 069 were equipped with SPX Mk3 Clamp Lock point mechanisms.
- (16.04.2019) Book of Rules – Section 36 (SW 61/19, WN 16)**  
Commencing forthwith, Version 19.03 of Section 36 replaced Version 19.02. The main changes were the inclusion of omitted images in Rule 4, Clause D, Rule 4, Clause F, and Rule 12, Clause B. SW 52/19 is cancelled.
- (16.04.2019) Book of Rules – Section 34 (SW 64/19, WN 16)**  
Commencing forthwith, new Local Operating Procedures 28 (Absolute Occupations – Supplementary Instructions) and 29 (Absolute Occupations – Operation of Validation/Test trains) were issued. SW 205/18 was cancelled.

- (16.04.2019) Melbourne Yard** **(SW 59/19, WN 16)**  
 Commencing forthwith, the Reversing Loop has been booked out of use. Points MYD131 & MYD203 and Crossover MYD199 have been secured normal. By July 2019 it had been removed.  
 Amend Diagrams 122/14 (West Tower) and 124/14 (Moonee Ponds Creek).
- (16.04.2019) Ouyen** **(SW 58/19, WN 16)**  
 Commencing forthwith, the Mallee Hwy (508.520 km) flashing lights will operate when an Up train enters the approach track circuit (which commences near the Down end of the platform) irrespective of whether Post 3 is at clear or stop. Should an Up train occupy the approach track circuit when Post 3 is at Stop, the signal will not be able to be cleared and it will be necessary for a Signallers Caution Order to be issued.
- 18.04.2019 North Geelong C – Grain Loop** **(SW 67/19, WN 17 & 18)**  
 On Thursday, 18.4., the Melbourne Loop line and the Arrival Track were restored to use. All standard gauge trains must be routed via the Dual Gauge Main Line, while broad gauge trains must be routed via the Arrival Track. Only one train movement at a time is permitted at North Geelong C.  
 Points NGC51U (formerly 12U), NGC67 (15), & CGL41 will be operated manually.  
 Points NGC53U and 31 will be secured to lie towards the Arrival Track. Points NGC51D will be secured reverse. Points CGL39 & CGL43 will be secured normal. Catch NGC65 (formerly 19) is secured reverse. Derail/Crowder NGC53D will be secured reverse and no vehicles can be stabled in the Arrival Track. Derail/Crowders NGC53D and NGC55 will be secured reverse.  
 The Departure Track, Corio Independent Goods Line, and North Shore yard are not available for train operations.  
*Up movements from the dual gauge main line from Gheringhap.*  
 The ARTC Network Controller and the Signaller North Geelong C will determine whether the Up train is a broad or standard gauge movement prior to it departing from Gheringhap. The Signaller will set Points NGC51U normal (for the Dual Gauge Main Line) for standard gauge movements or reverse (for the Arrival Track) for broad gauge movements, and inform the ARTC Network Controller that the train can be accepted. Points 29 are operated by the ARTC Network Controller. Operation of the Thompsons Road level crossing and authority to pass Home 72/40 will be in accordance with the ARTC Train Notice.  
*Up movements to the Grain Loop*  
 The Signaller will set Points NGC67 normal (towards the Grain Loop). The Signaller will then issue either a Signallers Caution Order for a standard gauge train to pass NGC62 from the Dual Gauge Main Line, or an Authority for a broad gauge train to pass Dwarf NGC60 from the Arrival Track. When the train arrives at Home CGL46 the Train Crew will request permission from the Signaller to pass the signal at Stop. The Signaller will then operate Points CGL41 for the movement from the Grain Loop.  
*Down broad gauge trains from the Melbourne Loop Line*  
 The V/Line Geelong Train Controller will inform the Signaller that a train will enter the Melbourne Loop Line for the Arrival Track. Before the approaching train arrives at Homes GLG52 or GLG56 the Signaller must confirm with the ARTC Network Controller that no standard or broad gauge trains from Gheringhap are to enter the Dual Gauge main line or the Arrival Track from the Down end. The Signaller must secure Points NGC67 and NGC51U reverse. The Signaller will then inform the Geelong Train Controller that the Down Train can be accepted via the Melbourne Loop Line. When the Down train has come to stand at Homes GLG52 or GLG56 the Geelong Train Controller will operate Points GLG61 and/or GLG63 as required and issue a Signallers Caution Order for the train to move towards Home NGC68. After confirming operation of Separation Street level crossing, the Signaller will issue a Signallers Caution Order for Home NGC68. Once the train is clear of Separation Street and Home NGC64 the Signaller will restore Points NGC67 normal. Once the train is clear of Dwarf NGC60, the Signaller will restore Points NGC51U normal if required for the next rail movement.  
*Down standard gauge trains from the Grain Loop to Thompsons Rd*  
 The Signaller will confirm with the ARTC Network Controller that the train can be accepted onto the ARTC Network at Thompsons Road. The Signaller will check that the Corio Quay Road protection equipment is operating and issue a Signallers Caution Order for Home CGL44. After confirming Points NGC67 and NGC51U are normal and that Separation Street level crossing is operating, the Signaller will issue a Signallers Caution Order for Home NGC70. Once the train is clear of Separation Street and Home NGC64 the Signaller will restore Points CGL41 normal. Operation of Points 29, operation of the Thompsons Road level crossing, and authority to pass Home 72/32 for departure of the train towards the main line will be by the ARTC Network Controller.  
*Down broad gauge trains from the Grain Loop to Thompsons Rd*  
 These instructions are identical to those of the standard gauge trains, except that Points NGC51U must be secured reverse towards the Arrival Track.

*Down broad gauge trains from the Grain Loop to Melbourne Loop*

The Signaller will confirm with the V/Line Geelong Train Controller that the train can be accepted onto the V/Line Network via the Melbourne Loop.

The Driver will inform the Signaller when the train has finished discharging the grain wagons and ask to move the lead locomotive to the rear of the consist for Push/Pull operations. Upon receiving permission, the Driver will secure the consist and uncouple the lead locomotive. The Signaller will check that the Corio Quay Road protection equipment is operating and issue a Signallers Caution Order for Home CGL44. The lead locomotive will be move to Home NGC70. The Signaller will secure Points NGC67 normal and NGC51U reverse (towards the Arrival Track). After confirming operation of Separation Street level crossing, the Signaller will issue a Signallers Caution Order for Home NGC70. Once the light loco is clear of Separation Street and Home NGC64 the Signaller will secure Points CGL41 normal. The Signaller will again confirm operation of Separation Street level crossing and issue a Signallers Caution Order for Home NGC64 for the light locomotive to come back onto the rear of the train in the Grain Loop.

The Signaller will then reverse Points CGL 41 for the departure of the train from the Grain Loop. The Signaller will check that the Corio Quay Road protection equipment is operating and issue a Signallers Caution Order for Home CGL44. After confirming that Points NGC67 are normal and NGC51U are reverse (towards the Arrival Track) and the operation of Separation Street level crossing, the Signaller will issue a Signallers Caution Order for Home NGC70. Once the train is clear of Separation Street and Home NGC64 the Signaller will restore Points CGL41 normal.

When the train is ready to depart from the Arrival Track the Driver will inform the Signaller who will obtain a train path from the V/Line Geelong Train Controller. When the train path has been agreed to, the Signaller must reverse Points NGC67 (to the Melbourne Loop Line) and NGC51U (to the Arrival Track). The Signaller will confirm with the Geelong Train Controller that Points GLG63 are reverse and Home GLG62 is at proceed. The Signaller will confirm operation of the Separation Street level crossing and issue a Signallers Caution Order for Home NGC64. The Signaller will inform the Geelong Train Controller that the train has departed. When the train is clear of the Melbourne Loop Line the Signaller will restore Points NGC67 and NGC51U normal.

*Down broad gauge trains from the Melbourne Loop to the Arrival Track*

The V/Line Geelong Train Controller will inform the Signaller that a train will use the Melbourne Loop to proceed to the Arrival Track. Before the train arrives at Homes GLG52 or GLG56 the Signaller must confirm that there are no standard gauge or broad gauge movements approaching from Gheringhap, and that Points NGC67 and NGC51 are secured reverse. The Signaller will then inform the Geelong Train Controller that the train can be accepted. Once the train has been brought to a stand at Homes GLG52 or GLG56, the Geelong Train Controller must set the route towards the Melbourne Loop and issue a Caution Order to proceed to Home NGC68. The Signaller will confirm the operation of Separation St and issue a Caution Order for Home NGC68. Once the train is clear of Separation St and Home NGC64 the Signaller will restore Points NGC67 normal. Once the train is clear of Dwarf NGC60, the Signaller may restore Points NGC51 normal if required.

SW 33/19, 38/19, & 57/19 are cancelled.

**18.04.2019 Murchison East (SW 62/19, WN 16)**

On Thursday, 18.4., Nos 3 & 4 Roads were restored to use and the main line points were restored to use. No 2 Road remains out of use and the points at each end of this road have been secured to lie for No 3 Road.

Post mounted Fouling point signs and sleeper fitted CP signs were installed at the Up end (147.160 km) and Down end (147.640 km).

Crossing trains is permitted using Nos 3 & 4 Roads. The clear standing room available is 480 metres.

Grain vehicles can be loaded at Murchison East. A Signaller must be in attendance while a train or locomotives are being operated at the station. The points in No 4 Road are normally secured reverse.

Amend Diagram 80/14 (Nagambie – Toolamba).

SW 56/19 is cancelled.

**21.04.2019 Sunshine (SW 68/19, WN 17)**

On Sunday, 21.4., the in-bearer point machine on Points 826 was replaced by a dual control point machine.

**22.04.2019 Flagstaff (SW 200/19, WN 14)**

Between Saturday, 13.4, and Monday, 22.4., Homes 789 & 789P were relocated 4 metres towards Southern Cross. Track circuits 608T, 611T, 612T, 615T & 617T were converted to axle counters. The axle counter resets will be 'Supervisory', 'Next train', and 'Occupation'.

- 22.04.2019 Parliament** (SW 200/19, WN 14)  
Between Saturday, 13.4, and Monday, 22.4., Homes 793 & 793P were relocated 4 metres towards Southern Cross. Track circuits 645T, 649T, 650T, & 654T were converted to axle counters. The axle counter resets will be 'Supervisory', 'Next train', and 'Occupation'.
- 22.04.2019 Wyndham Vale** (SW 63/19, WN 16)  
Between Tuesday, 16.4, and Monday, 22.4., trailing Crossover 820 (39.020 km – 39.140 km) and facing Crossover 822 (39.148 km – 39.266 km) were provided. Both crossovers were equipped with dual control point machines and will be secured normal.  
Amend Diagram 126/14 (Wyndham Vale).
- (23.04.2019) Murchison East** (SW 69/19, WN 17)  
Operating Procedure 106 (Murchison East) was reissued to cover the alterations described in SW 62/19. SW 200/17 is cancelled.
- 24.04.2019 Flinders Street** (SW 198/19 & 199/19, WN 14)  
Between Saturday, 6.4., and Wednesday, 24.4., the following signals were relocated 20 metres in the Down direction and equipped with TPWS
- Platform 6: 585, & 586
  - Platform 7: 733 & 736
- 24.04.2019 Flinders St – Richmond Junction** (SW 198/19, WN 14)  
Between Saturday, 6.4., and Wednesday, 24.4., the following signals were equipped with TPWS:
- Caulfield Local: 666, 668, 690, 692, 693, 735, 737, 739, 772, 774, 775, 776, & 777
  - Caulfield Through: 677, 698, 741, 743, 745, 782, 785, & 787.
  - Down Special: 854, & 982
  - Down Sandringham: 992
- 24.04.2019 Richmond Junction - South Yarra** (SW 198/19 & 199/19, WN 14)  
Between Saturday, 6.4., and Wednesday, 24.4., the following signals on the Caulfield Local lines were equipped with TPWS: 669, 670, D71, D72, D76, D80, D81, D88, D91, D99, D100, D107, & D114.  
Up Automatic 669 (Platform 5) and Down Automatic 678 (Platform 4) were replaced by masts on a new signal bridge 8 metres in the Up direction. A co-acting signal 669P was provided.  
Down Automatic D71 (Platform 6) and Up Automatic D72 (Platform 5) were replaced by masts on a new signal bridge 5 metres in the Down direction. A co-acting signal D71P was provided.  
The following track circuits were converted to CSEE track circuits: 674T, 668T, 669T, 760T (new), 676T, 679T, 670T, 678T, D71T, F71T, D72T, F72T, D76T, F76T, D73T, F73T, D80T, F80T, D81T, F81T, D88T, F88T, D91T, & F91T.
- 24.04.2019 South Yarra – Hawksburn** (SW 172/19, WN 13)  
Between Saturday, 6.4., and Wednesday, 24.4., Automatic D140 was replaced by a tilt mast signal.
- 28.04.2019 Kilmore East** (SW 71/19, WN 18)  
Between Saturday, 27.4., and Sunday 28.4. the existing bracket Post No 11 was replaced by a straight mast. The new mast will have a two position (light) Home for movements along the Down line operated by lever 7, and a two position (light) Dwarf and 'Siding' sign for movements to the Quarry siding (operated by lever 25). The illuminated letter 'A' formerly on Post 11 was abolished.  
The illuminated letter 'A' on Post 13 was abolished.  
Amend Diagram 40/16 (Heathcote Junction – Kilmore East).
- 29.04.2019 South Kensington** (SW 227/19, WN 18)  
On Monday, 29.4., Points 663 were restored to service. SW 177/19 was cancelled.
- 06.05.2019 Flinders Street – North Melbourne (Northern Underground Loop)** (SW 231/19, WN 18)  
Between Saturday, 4.5., and Monday, 6.5., the following alterations took place:
- The following track circuits were converted to CSEE track circuits: 400T, 401T, 403T, 404T, A404T, 407T, 408T, 440T, 442T, 472T, 513T, 515T, 517T, 540T, & 542T.
  - The following train stops were converted to JA Mk4 type: 413V, 415V, 417V, 424V, 429V, 431V, 435V, 437V, 438V, 447V, 449V, 450V, 451V, 453V, 457V, 459V, 461V, & 455V, & 591V.
- (07.05.2019) North Geelong C - Moorabool** (SW 76/19, WN 19)  
Commencing forthwith, Diagrams 12/16 (North Geelong) and 10/16 (North Geelong C – Moorabool) replaced 174/11 and 172/11 respectively as in service.
- (07.05.2019) Heathcote Junction – Kilmore East** (SW 74/19, WN 19)  
Commencing forthwith, Diagram 22/19 (Heathcote Junction – Kilmore East) replaced 40/16 as in service.

- (07.05.2019) Seymour** (SW 74/19, WN 19)  
Commencing forthwith, Diagram 20/19 (Seymour) replaced 156/11 as in service.
- 07.05.2019 Lethbridge** (SW 73/19, WN 19)  
On Tuesday, 7.5., a new Up Location Board was provided at 99.700 km (formerly 99.100 km), and a new Down Location Board at 94.700 km (formerly 95.100 km). The Block Point boards at Lethbridge Block Point (97.100 km) were replaced. Amend Diagram 4/99 (Bannockburn – Lal Lal).
- 07.05.2019 Lal Lal** (SW 73/19, WN 19)  
On Tuesday, 7.5., a new Up Location Board was provided at 140.000 km (formerly 139.300 km), and a new Down Location Board at 133.900 km (formerly 135.500 km). The Block Point boards at Lal Lal Block Point (137.457 km) were replaced. Amend Diagram 4/99 (Bannockburn – Lal Lal).
- 07.05.2019 Warrenheip** (SW 73/19, WN 19)  
On Tuesday, 7.5., a new Up Location Board was provided at 151.300 km (formerly 150.500 km), and a new Down Location Board at 145.000 km (formerly 145.300 km). Amend Diagram 188/11 (Warrenheip – Ballarat East).
- 07.05.2019 Brooklyn** (SW 81/19, WN 20)  
On Tuesday, 7.5., one of the flashing light masts at Somerville Road was damaged by a road vehicle. The mast was removed as no replacement is available. The main line points leading to the Apex/Brooklyn Tip sidings were secured normal and the key to the points is held by the Track Force Protection Co-ordinator (TFPC).  
  
Before a rail vehicle can operate on the Apex or Brooklyn Tip sidings, 24 hours notice must be given to the Regional Access Manager. The Regional Access Manager must arrange for road traffic management to be placed on the approaches to the level crossing. The TFPC will remove the point clip on the main line points. When the rail vehicle is ready to enter the siding, the TFPC will instruct the road traffic management to display their 'Stop' bats, and they will operate the test switch for the level crossing equipment. Once the level crossing equipment has completed its cycle, the TFPC may hand signal the Driver to cross Somerville Road. If the rail vehicles are to remain in the sidings, the TFPC must ensure a Track Closure Device has been placed on each siding approach to the level crossing adjacent to the existing Stop Boards.
- 13.05.2019 Boort** (TON 110/19, WN 20)  
On Monday, 13.5., No 2 Road was booked out of service due to deficient roll-out protection. The main line points were secured normal. Note that Nos 3 & 4 Roads at Boort had previously been booked out of service on 25.7.12 (see TON 157/12).
- (14.05.2019) Caulfield Underground Loop** (SW 246/19, WN 20)  
Commencing forthwith, Diagram 19/19 (Southern Cross – Richmond, Caulfield Loop) replaced 95/12 as in service (signalling alterations SW 199/19 & SW 200/19).
- (14.05.2019) Flinders St East - Richmond** (SW 246/19, WN 20)  
Commencing forthwith, Diagram 17/19 (Flinders Street East - Richmond) replaced 37/16 as in service (signalling alterations SW 199/19 & SW 200/19).
- (14.05.2019) North Dynon** (SW 79/19, WN 20)  
Commencing forthwith, the Gate 11 Access Road (crossing the Up and Down Through Goods Lines at North Dynon) will be closed to road traffic. The crossing signs will be removed. Amend Diagram 49/18 (South Kensington)
- (14.05.2019) Maryborough** (SW 83/19, WN 20)  
Operating Procedure 80 (Maryborough) was reissued to include instructions for Up standard gauge operations via No 2 Road (Rule 8, and amendments to Rule 1 clauses d and e, and Rule 10). SW 434/18 is cancelled.
- (14.05.2019) Flinders Street – Richmond** (SW 246/19, WN 20)  
Commencing forthwith, Diagram 17/19 (Flinders Street East – Richmond) replaced 37/16 as in service (signalling alterations SW 199/19 & SW 200/19).
- 20.05.2019 Macleod** (SW 239/19, WN 19)  
Between Saturday, 18.5., and Monday, 20.5., the point mechanisms on Points 6, 7, 9 & 11 were replaced by SPX Mk3 clamp locks.
- (21.05.2019) South Kensington** (SW 250/19 & 87/19, WN 21)  
Diagram 11/19 (South Kensington) replaced 49/18. The changes are the relocation of Home SKN756 and the closure of Gate 11.

- (21.05.2019) Pakenham** (SW 249/19, WN 21)  
Commencing forthwith, Up trains must not terminate in Platform No 1 (No 2 Road) to form a Down service. If it is required to terminate an Up train to form a Down service, Platform No 2 (No 1 Road) must be used.
- (21.05.2019) Castlemaine** (SW 86/19, WN 21)  
Commencing forthwith, transfer movements between No 2A Road (V/Line) and the Victorian Goldfields Railway will not require the issue of an Authority for Rail Movement (Form 2500) (see Section 34, No 28 Absolute Occupations – Supplementary Instructions). The transfer movements will operate in accordance with Operating Procedure 112 (Castlemaine).
- 24.05.2019 Reservoir** (SW 245/19 & 267/19, WN 20 & 21)  
On Friday, 24.5., the inbound turning lane from High Street across the railway will be closed to road traffic. The boom barrier arms (Nos 5 & 9) across this lane will be removed to allow piling works. Lane closure barriers will be provided. The flashing lights will remain operational.
- 27.05.2019 West Footscray** (SW 240/19, WN 20)  
On Monday, 27.05., Up Automatic M286 was replaced by a new cantilever mast located 14 metres in the Up direction. Amend Diagram 113/13 (West Footscray – Tottenham).
- 27.05.2019 Tottenham Yard** (SW 90/19, WN 22)  
On Monday, 27.5., No 7 Road East Yard was abolished. The points lying towards No 7 Road at each end will be secured to lie towards No 5 Road. The points between Nos 7 & 8 Roads will be abolished (previously secured – see SW 54/19).  
Amend Diagram 62/14 (West Footscray – Tottenham).
- 27.05.2019 Ultima** (SW 91/19, WN 22)  
Commencing Monday, 27.5., and until completion of the work, main line points were installed for the new Ultima Hay Siding. This siding will be on the Up side of the line opposite the Ultima Sub Terminal siding. The Up end points are at 394.446 km, and the Down end points at 395.548 km. The points will be secured normal. Amend Diagram 146/11 (Ultima – Chillingollah).
- 27.05.2019 Seaford – Kananook** (SW 241/19, WN 20)  
On Monday, 27.5., the following alterations took place:
- Point machines were installed on the new points at the Up and Down ends of Kananook. These points will remain secured normal, but will be detected by the signals.
  - Automatics F1257, F1315, & F1330 were converted to non-controlled Homes and provided with illuminated letter 'A's.
- Should a train arrive at Homes F1257, F1315, or F1330 and the signal is at Stop, the letter A is not illuminated, and no train can be seen in advance of the signal, the Driver must contact the Train Controller. The Train Controller can give a verbal authorisation to pass the Home signal at Stop, but the Train Controller must instruct the Driver to stop at the points in advance of the signal to check that they are in the required position.  
Diagram 29/19 (Bonbeach – Frankston) replaced 61/18.
- (28.05.2019) Tottenham Yard** (SW 93/19, WN 22)  
Operating Procedure 21A (Tottenham Yard) has been reissued. SW 20/12 is cancelled.
- 30.05.2019 Ultima** (TON 123/19, WN 23)  
On Thursday, 30.5., the siding was booked out of service for works leading up to the tie cycle.
- 30.05.2019 Waitchie** (TON 124/19, WN 23)  
On Thursday, 30.5., the siding was booked out of service for works leading up to the tie cycle.
- 30.05.2019 Lalbert** (TON 125/19, WN 23)  
On Thursday, 30.5., the siding was booked out of service for works leading up to the tie cycle.
- 30.05.2019 Boort** (TON 126/19, WN 23)  
On Thursday, 30.5., Boort GEB siding was booked out of service to allow the retaining wall to be repaired.
- (04.06.2019) Camberwell** (SWP 8/19, WN 23)  
Operating Procedure 4g (Camberwell – Docking trains from Sidings B, C, D, & E (Down end)) was added to the Metro Trains Burnley Group Operating Procedures.  
Two theatre indicators are provided at the Down end neck of Sidings B, C, D, & E and work in conjunction with Dwarf CAM336. The indicators display 'B', 'C', 'D' or 'E' (depending on which route has been set) when Dwarf CAM336 is at proceed for a movement from the sidings. Drivers must not pass the fouling point markers of the siding until Dwarf CAM336 is at proceed and the indicator shows the letter corresponding to the siding on which train is standing.

**(04.06.2019) Lilydale (SWP 7/19, WN 23)**

Operating Procedure 12f (Lilydale – Docking trains from Sidings A, B, & C) was added to the Metro Trains Burnley Group Operating Procedures.

A theatre indicator is provided at the neck of Sidings A, B, & C and it works in conjunction with Dwarf LIL309. The indicators display 'A', 'B', & 'C' (depending on which route has been set) when Dwarf LIL309 is at proceed for a movement from the sidings. Drivers must not pass the fouling point markers of the siding until Dwarf LIL309 is at proceed and the indicator shows the letter corresponding to the siding on which train is standing.

An intermediate Train Stop is provided in No 1 Track for trains arriving into the platform. The train stop is normally lowered, but will raise if a train passes the fouling point in Sidings A, B, or C when Dwarf LIL309 is at Stop. Points 209 & 211, located in advance of the fouling point markers are electro hydraulic point machines which cannot be trailed through.

**(11.06.2019) Ararat (SW 96/19, WN 24)**

Diagram 16/19 (Ararat) replaced 78/18 as in service. The changes relate to updated signs (SW 36/19)

**11.06.2019 Darling (SW 254/19 & SWP 6/19, WN 22)**

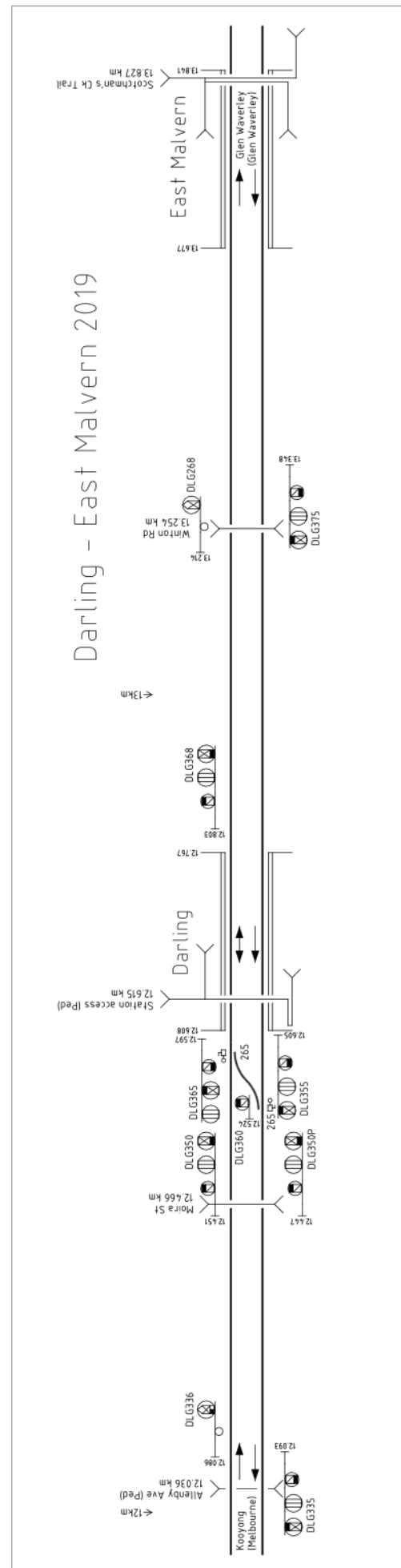
Between Saturday, 8.6., and Tuesday, 11.6., the signal box and mechanical interlocking frame was abolished. The terminating facilities are now worked from the Burnley control panel at Metrol.

The following alterations took place:

- The switch in/out function was removed, and the illuminated letter 'A's were removed from all signals.
- Control of the signalling is via the Gardiner CBI (Smartlock T400)
- The Gardiner JSA was replaced by a Modbus connected to TCMS.
- Automatics DG369, DG388, & DG344 were converted to Home signals and renumbered DLG368, DLT375, and DLG335 respectively.
- Controlled Automatic DG343 was renumbered DLG336.
- Home 2 was renumbered DLG350, and the co-acting signal was renumbered DLG350P.
- Homes 18 & 22 were renumbered DLG355 & DLG365 respectively.
- Dwarf 21 was renumbered DLG360.
- Automatics DG383 & DG334 were renumbered DLG268 & DLG235 respectively
- Crossover 6 was renumbered 265
- Signal post telephones are not provided.
- Station limits extend from DLG350 to DLG268 (Down line) and DLG375 to DLG235 (Up line)

Diagrams 3/19 (Heyington – Darling & Burnley Stabling Sidings) & 1/19 (East Malvern – Glen Waverley) replaced 35/16 & 67/18 respectively.

A new Burnley Group Operating Procedure 16 (Darling – Failure of Signals) was issued.



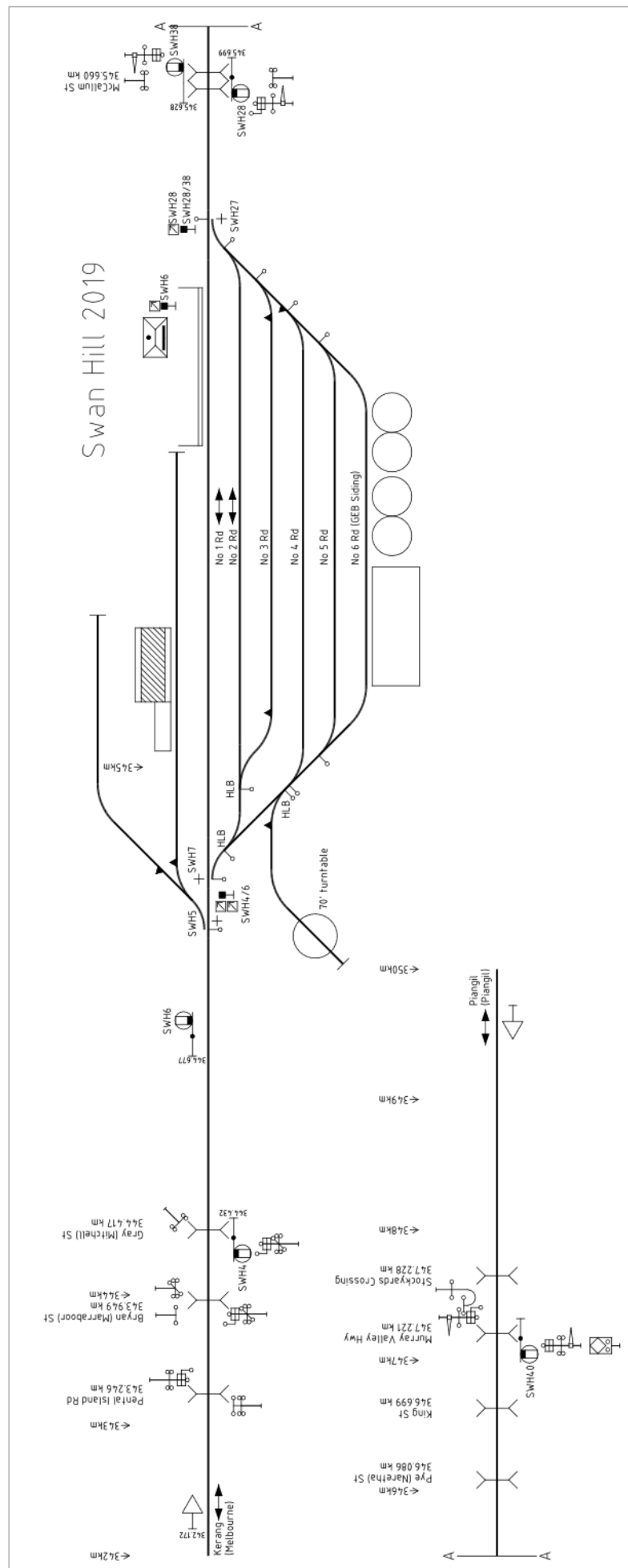
- (18.06.2019) Train Order Territory** (SW 102/19, WN 25)  
Operating Procedure 131 (Train Order Territory) was reissued to update the location of Master Keys. SW 396/18 was cancelled.
- (18.06.2019) Ultima Hay Siding** (SW 99/19, WN 25)  
Commencing forthwith the Ultima Hay private siding was available for use.  
The siding is located at Ultima opposite the existing Ultima Sub Terminal siding, with the main line points located at 394.446 km and 395.548 km. The main line points are operated by WSa levers and secured by a large type Master Key lock. Hand operated Derail blocks are provided clear of the clearance point at both ends of the siding.  
Amend Diagram 146/11 (Ultima – Chillingollah).
- (18.06.2019) Sunbury – Bendigo** (SW 101/19, WN 25)  
Operating Procedure 115 (Sunbury – Bendigo Defective Signals) was reissued with minor corrections. SW 134/12 is cancelled.
- (18.06.2019) Pakenham – Traralgon** (SW 103/19, WN 25)  
Operating Procedure 125 (Pakenham – Traralgon Defective Signals) was reissued due to Signal PKM781 being omitted. SW 100/19 is cancelled.
- 20.06.2019 Swan Hill** (SW 109/19, WN 25)  
On Thursday, 20.6., the following alterations took place:
- Up Home E and Down Home G were abolished.
  - Up Home F was renumbered SWH40.
  - Down two position Home SWH38 was provided at 345.628 km on the Up side of McCallum St and fixed at stop.
  - Up two position Home SWH28 was provided at 345.699 km on the Down side of McCallum St and fixed at stop
- 24.06.2019 Altona Junction** (SW 303/19, WN 25)  
On Monday, 24.6., the point machine on Points 209 will be replaced by a M23A dual control point machine.
- 24.06.2019 Ararat** (SW 111/19, WN 25)  
Work commenced on Monday, 24.6., to provide a catch point at 264.190 km (measured via Ararat Yard) on the Ararat Yard lead between Points 7D and Stop Board 2. The points will be secured normal.  
Amend Diagram 26/19 (Ararat).
- 24.06.2019 Rockbank** (SW 108/19, WN 25)  
On Monday, 24.6., the station was temporarily closed to passengers. The pedestrian gates at 29.876km were abolished.  
The crossing loop will remain available for use.  
Diagram 36/10 (Ardeer – Rockbank) replaced 10/19.
- 24.06.2019 Swan Hill** (SW 109/19 & 114/19, WN 25 & 26)  
Between Friday, 21.6., and Monday 24.6., the existing mechanical signalling was replaced by light signals. The following alterations took place:
- Down Home A (mechanical) and Up Home K (light) were abolished.
  - The rotary detectors on Points B & C were abolished.
  - The control panel was abolished.
  - The signal lever and associated Annett lock on the platform was abolished.
  - The A & E pattern Annett Keys were abolished.
  - The Approach Section Indicator Board and associated speed restriction sign at the Down end of the platform were abolished.
  - The former Wharf siding was abolished.
  - The signal lever for Home A and the push buttons for Home K at the Up end points were abolished.
  - The push buttons and indications for Signals E and G at the Down end points were abolished.
  - Up Home SWH4 was provided at 344.432 km on the Down side of Gray St. This Home is interlocked with the operation of Gray St.
  - Down Home SWH6 was provided at 344.677 km.
  - Homes SWH28 and SHW38 were brought into service. These Homes are interlocked with McCallum St.
  - Points B (leading to the Freight Centre siding), Points C (Up end points to No 2 Road) and Points D (Down end points leading to No 2 Rd) were renumbered as SWH5, SWH7, and SWH27 respectively.

Electric detection at all three point were provided for the normal position of the points and the plunger lock.

- Controls and indications for SWH4 and SWH6 were provided in a locked box situated between Points SWH5 and SWH7.
- Controls and indications for SWH28 and SWH38 were provided in a locked box at Points SWH27.
- A signal control panel was provided in the station office with controls and indications for Homes SWH4, SWH6, SWH28, SWH38 & SWH40. A track occupancy light was provided for the Up Approach to Gray St.
- A control and indication for SWH6 was provided opposite the door from the station platform to the station for the operation of the signal while a Signaller is not in attendance.
- The flashing lights at McCallum St were replaced by boom barriers.
- The McCallum Street and Pye Street level crossings were converted to axle counters. Healthy state indicators and yellow whistle boards were provided. Remote monitoring equipment was provided.
- Level crossing predictor indicator boards were provided at Pental Island Rd (343.246 km).

Diagram 24/19 (Swan Hill) replaced 126/11.

Operating Procedure 124 (Swan Hill) was reissued. SW 161/07 was cancelled.



- 24.06.2019 Richmond Junction** (SW 255/19, WN 22)  
On Monday, 24.6., the point machine on Points 681 was replaced by a SPX Mk3 clamp lock.
- (25.06.2019) Ultima – Chillingollah** (SW 112/19, WN 26)  
Diagram 56/19 (Ultima – Chillingollah) replaced 146/11 as in service. The diagram reflects the provision of the Ultima Hay Siding, and the removal of the sidings at Gowanford & Chillingollah (see SW 202/14). Note that it does not appear that the removal of the siding at Gowanford was previously advised.
- 26.06.2019 Stratford** (SW 113/19, WN 26)  
On Wednesday, 26.6., TPWS was provided to enforce the 10 km/h speed restriction over the Stratford River bridge.  
Three overspeed sensors were provided on the Up side of the bridge for Down movements, and two overspeed sensors on the Down side for Up movements.  
The 10 km/h restriction will now apply between 221.392 km and 222.276 km, and 10 km/h curve boards were provided at these two locations. The existing notice board “Avon River Bridge Maximum Speed 10 km/h 600m” was relocated from 220.985 km to 220.784 km.  
Down movements must not exceed 50 km/h from 221.102 km on the Up approach to the bridge.  
Amend Diagram 84/18 (Stratford – Hillside).
- 30.06.2019 Upfield** (SW 320/19, SWP 9/19, WN 26)  
On Sunday, 30.6., control of the Coburg, Gowrie & Upfield areas was transferred to the Western Signal Control Panel at Metrol.  
Signal post telephone lines to Metrol from Coburg, Gowrie and Upfield will not be provided.  
Signs were provided at the exit of Sidings A and 1 to 3 to instruct Drivers of docking trains to contact the Signaller, Western Panel, Metrol, using DTRS or mobile phone.  
The panel at Upfield can still be switched in if required. A Signaller will be rostered on duty at Upfield during normal train running hours until the panel is decommissioned. It is expected that the panel will be abolished and removed by the end of August 2019.  
Metro Trains Northern Group Operating Procedure 22 was reissued.
- 04.07.2019 Pakenham – Pakenham East** (SW 299/19, WN 26)  
The overhead between Structure 1944 and the end of the overhead at 61.832 km was commissioned. The overhead was energised on the Down side of Structure 1909 (59.582 km).  
The temporary overhead wire terminating signs near Down Homes PKM624 and PKN626 were removed. The circuit alterations affecting the train stops at Down Homes PKM624 and PKM626 were removed.
- 04.07.2019 Pakenham East** (SW 297/19, 298/19, 300/19, & 309/19, WN 26)  
Between Sunday, 30.6., and Thursday, 4.7., the following alterations took place:
- Derail 659 (Arrival Road) was brought into service.
  - The theatre route indicators on Down Homes PKM752 & PKM754 were brought into service.
  - The automatic operation of the train stabling compound gates 658 (Arrival Road), 660 (Wash Road) & 662 (Departure road) were brought into service
- The depot will remain out of service. The WestCAD screen at Dandenong will show the depot layout, but will not be in use. Train movements within the depot will be managed by Downer Rail and all points will be left in manual mode.  
The following temporary arrangements were made:
- All trains will arrive and depart via the Departure Road.
  - Temporary circuit alterations were made to display a low speed aspect for trains arriving into the Departure Road from Homes PKM752 & PKM754.
  - Points 652 were secured normal to prevent access to the Arrival and Wash Roads.
  - Stop boards were provided at the Down end of the Departure Road at PKE716 (Down movements) and PKE717 (Up movements). The stop boards are lettered: “Stop Trains must not pass this point without authorisation from Downer Rail”.
- When trains are to depart from the depot, the Downer Rail Shunter will accompany the movement to the Stop board. The Shunter will contact the Dandenong signaller and request permission to enter the Departure Road. If permission is granted, the Shunter is to instruct the Driver to pass the Stop board and proceed to Home PKM763.  
When trains are to arrive into the depot, the Dandenong signaller must advise the Downer Rail Shunter of the movement. If no other permissions have been granted affecting the Departure Road, the train can be signalled to the Stop board. The Downer Shunter will meet the train at the Stop board, and authorise the Driver to pass the board.

When a Down train is required to terminate in the Departure Road and form an Up train, the Dandenong signaller must inform the Downer Rail Shunter of the intended movement(s). Where there are multiple turnback movements (i.e. Driver training), the signaller need only advise the Shunter once.

**08.07.2019 Melton (SW 108/19, WN 25)**

Between Monday, 24.6., and Monday, 8.7., the following alterations took place:

- The northern boom at Coburns Rd (38.020 km) was relocated further from the running line to make space for a second track.
- A new track was constructed between the Down end of the station platform and Coburns Road.
- Siding A was replaced by a new siding on the Up side of the existing siding, and a friction buffer stop provided at the Down end.
- Points 621U was provided in Siding A at 37.404 km facing Up trains. A dual control point machine was provided. The points were secured normal.

Diagram 38/19 (Melton – Parwan Loop) replaced 68/10.

**08.07.2019 Bacchus Marsh (SW 108/19, WN 25)**

Between Monday, 24.6., and Monday, 8.7., the following alterations took place:

- A pedestrian overpass was provided at 50.490 km.
- The hand points in No 3 Road leading to the former stabling yard were abolished.
- Crossover 31 was provided in the single line at 53.006 km immediately in advance of the points to Maddingley Stabling Sidings facing Up trains. Dual control point machines were provided. The points were secured normal.
- Points 27 were provided in the single line at 53.730 km on the Down side of Kerrs Rd facing Up trains. A dual control point machine was provided. The points were secured normal.

Diagram 40/19 (Bacchus Marsh – Rowsley) replaced 14/19.

**08.07.2019 Ballan (SW 108/19, WN 25)**

Between Monday, 24.6., and Monday, 8.7., the following alterations took place:

- The Down side booms at Windle St (78.722 km) and Cowie St (79.663 km) were relocated further from the running line to make space for a second track.
- New signal gantries were provided at 78.458 km and 81.014 km

Diagram 48/19 (Ballan – Gordon) replaced 4/19.

**End£**

## CORRECTION

In the article 'Signalling the Electrified Railway', published in the May issue, the reference to Edwin Grove on page 47 is not correct. Mr Grove's correct name was Edmund Grove.

## TRARALGON 1987

David Harvey



*The days of the L class electric engines are being challenged as additional diesels are taking over more of their duties under the wires, whilst Traralgon Yard is full and standing with all roads from No's 1 to 6 being occupied. Squeezing in between the L and the N class in the middle of the photo is T408 + T400 arriving from Bairnsdale with Number 8496 Up Pass from Bairnsdale to Melbourne. Saturday 15th March 1987. Photo Dave Harvey*

### Notes on a Picture

On the right is Number 6 Road, which is the dead-end track that runs through the freight centre shed and is holding super and cement trucks for Traralgon Cement Siding which is out on the Sale Line at the former livestock siding. Next, in Number 5 Road, is the consist for Number 9447 Bairnsdale Goods that will leave Traralgon at 0100 hours on Monday morning. The timber wagons are coded VFTY but are locally known as footy trucks because they look like a heap of goal posts in a row. In Number 4 Road are tarped VOCX wagons loaded with superphosphate, which is used in the farming sector. These wagons will be shunted up the shunt extension of Number 3 Road towards the Melbourne end to be emptied out on the Monday by a tractor with a grab attachment on the back which was locally known as a "pelican" because of its break type appearance. At the end of the superphosphate trucks are two VLCX louvre wagons filled with bagged cement for the Cement Siding.

Out in the distance on the Maffra Line, which is the extension of Number 3 Road, is Number 9462 Up Goods. Departing early on Monday morning, this goods to Melbourne will convey empty paper wagons for Maryvale,

loaded paper wagons for Melbourne, empty briquette wagons for Morwell, loaded briquette wagons and general loading. As Number 9462 goods is sitting out on the Maffra Line, it blocks Number 54 points which is the last opportunity for a locomotive to run round its train at Traralgon. This crossover is situated 900 metres east of the signal box and runs from the Maffra Line to the Sale Line and is operated by dual control point machines. Electric locos can use these points, as the overhead catenary wire extends slightly further, stopping just short of the Lydiard Road crossing which is approximately 159.3 kilometres from Melbourne.

In Number 3 Road, in front of the goods, three 'L' class locomotives are stabled – L1150 (closest to the camera), L1156 and L1166. In front of these locomotives are two N sets comprising of three carriages each. The set closest to the L class will make the 0850 hours Up Melbourne pass and the other will become the 0650 hours Pass on the Monday morning. Stabled in Number 2 Road is locomotive N459 along with one N set which is comprised of three carriages. N459 will run around through Number One Road and will form the 0605 hours Up passenger to Melbourne on Monday morning. All three sets are without

a D van or parcels van as parcels traffic didn't seem to be a priority anymore.

All the car sets that terminated at Traralgon are cleaned and serviced each week night in the Maffra Departure Roads where they are stabled Monday to Thursday nights. On the Friday night shift, however, the shunters would pull the cars out and stable them in the yard ready for the next Monday morning. This is why the carriages were stabled in Number 2 and 3 Roads as the shunters did not start until day shift Monday at 0700.

"Under no circumstances are vehicles to be left stabled in Number 2 Road at any electric staff crossing station," states the rule book, so how can Traralgon get away with it? There are exceptions to this rule and a list of these exceptions are found in the 1979 General Appendix. On pages 118-9 of the General Appendix, there is a section headed 'No 2 Track at Staff Stations'. At all Staff Stations, permanent or temporary, Number 2 track as well as Number 1 track must be regarded as a running line. Number 2 track must always be kept clear to cross trains. This order did not prevent Number 2 Road from being used for shunting purposes when required, but vehicles must not be allowed to remain standing in Number 2 Road after shunting has been completed unless attached to a locomotive. The instructions, however, have a list of stations at which it was permitted to stand vehicles in Number 2 track, but only when there is not sufficient siding accommodation. Traralgon is on this list. Stations anywhere can use Number 2 Road for shunting purposes as long as a locomotive is employed there to shunt them and the signalman doesn't leave vehicles standing unattended. Forgetting about the vehicles that are left standing unattended in Number 2 Road at a single line crossing station could lead to a serious incident if you were to cross trains in darkness or foggy weather. Automatic reversers on signals and track circuiting may have been brought in for just a scenario like the following because a signal assistant may get busy with the arriving trains and forget about restoring the signals to the stop position as the signal box could be in a separate position up the platform to the station office where the electric staff instruments are located. Trains must have been accidentally turned in to an occupied road in the past and that is how most of these Rules and Regulations came about by an actual incident and hopefully these measures will prevent an incident from happening again.

Returning to the photo, standing on Traralgon Turntable Road are locomotives S310 and T406 (out of sight). The 70 foot electrically driven turn table only has half a round house around it and the roof provides shelter for eight locomotives. It also shelters repair work on vehicles which have been blue carded, meaning they are in need of light repairs before returning to service with the Australian Paper Mills at Maryvale or the briquette siding at Morwell. There is also a tower that provides dry sand for the locomotives at the diesel fuel point. Next to the fuel point is the L class siding which contains electric locos L1162 and L1160.

I was standing on the foot bridge that straddles the Traralgon Yard when I took this photo. Behind me Number 3,4,5 and 6 Roads are full of goods wagons mainly empty

log wagons, empty GY wagons for Bairnsdale to be returned full of timber, bitumen trucks, empty GY wagons for the briquette factory plus more bogie louvre vans for the Australian Paper Mill at Maryvale.

Arriving into Number 1 Road, just visible opposite the turntable and the two L class locos is Number 8496, the Up Bairnsdale to Melbourne Passenger hauled by T408-T400. Those two engines will soon be detached and be replaced by X32 (out of sight) which is sitting out on the main line in the Traralgon –Morwell single line section. The driver of X32 has been provided with the Traralgon – Morwell Large Electric Staff and will take that staff with him when shunting is complete and use it to run through the section.

There is no free road to perform a simple run around for the two T class locos 408 and 400, so they will cut off the Pass once it has stopped at the platform. Then the two T class locos will go forward and diverge to their right and travel up into the yard to Siding A, which is an extension of Number 3 Road. T408 and T400 will most likely stop next to X32 and, after a quick shouting match between both drivers, the crew of X32 will wait for the Down home signal to go to proceed and then back on to the six passenger cars at the platform.

The greater part of the Traralgon yard is not track circuited so the Home signal will go to proceed even when the road is occupied. A Home signal at proceed indicates to a driver that the road should be clear to the next fixed signal. To deal with this situation at Traralgon, the Station Master must be advised of the circumstances and he will stand at the rear of the train to ensure that it is protected by a red flag by day or a red light by night. If the Station Master is busy, he will delegate this task and the Guard will protect the train.

The points have been reset for the straight road and the Down Home arrival has gone to proceed for X32 to back onto its train. The second person from locomotive X32 is already walking back along the track side. The driver knows that the road is occupied and he will travel at a speed that will enable him to stop short of any obstruction on the line. The second person waits in the pit at front of the passenger carriages. As the locomotive approaches, the second person makes a stop sign by placing both his arms vertically straight above his head. This stops the loco, then he gives an 'ease up' to connect the couplers which is done by bringing the straight arms together above the head and taping his hands on top of each other. When the couplers have joined, he will bring his arms out from above his head and down by his side. He will then join the air lines from the carriage to the air lines on the locomotive.

A train examiner isn't rostered on for a Sunday at Traralgon, so the train crew has to undertake the duties of a train examiner and carry out a modified brake test. After coupling, the second person will walk along the train observing the air gauges and checking to ensure that all the brake rigging is okay. At the rear of the train the second person will pull the tap to release the air in the brake pipe and then close it. He will then observe the air pressure gauge to ensure that the air flow is consistent and can be maintained at the correct pressure.

With the modified test carried out the second person then walks up the platform and mounts the engine, ready

for departure. The tip or all clear is given from the Stationmaster to the Guard when all the platform work is complete. The Guard then passes the 'all clear' signal to the locomotive assistant with a green flag. The locomotive assistant acknowledges with his hand outstretched horizontally and then 8496 Up Bairnsdale Pass is away on time with X32 long end leading.

The two T class locos that have been sitting in Siding A, blocked by the pass, are now free as the disc comes off. T408 and T400 exit Number 3 Road and make their way into the platform road where they stop. The driver hops off and goes into the station building to pick up his correspondence. The two T class locos then go forward and get the bottom right hand home signal and travel out on to the Sale Line. The crew swap ends and then set back in to the Loco where they refuel and T400 will ready itself to run the evening pass back to Bairnsdale.

The list of trains leaving Traralgon on Monday morning the 17th of March 1987

- T400 Down Bairnsdale Pass (Sunday night)
- T408 on 9447 Down Bairnsdale Goods at 0100hrs
- L1156 and L1166 on 9462 Up Melbourne Goods
- S310 and T406 on 9444 Up light engines to Morwell Briquette Siding. T406 will bank 9444 Up goods through the Haunted Hills to Moe, then detach and stable at Moe where it will be picked up by the next Down Traralgon goods.
- 8406 the 0605hrs Up Pass with loco L1160
- 8410 the 0650hrs Up Pass with loco N459
- 8412 the 0742 Up Bairnsdale Pass with loco T400
- 8412 the 0750 Up Pass with loco L1150
- 8420 the 0850 Up Pass with loco L1162

## BOOK REVIEW

**Signal Boxes of New South Wales Railways and Tramways, Volume 1 – The History.** By Robert T. Taaffe Casebound, 448 pages, A4. Published by Taaffe Press, August 2019. Available from the author ([signalboxbook@gmail.com](mailto:signalboxbook@gmail.com)) for \$110 including postage and packing.

This short review is primarily to bring this book to the attention of the members of the society now that it has been published. At 448 pages, neither the president, secretary, or editor has yet finished the book, and we hope to publish a more detailed review of this book next issue.

This is the first of four volumes on the signal boxes of the NSW railways and tramways. This volume, however, can stand alone and forms the introduction to the larger work.

The volume commences with a short introduction to signal boxes. The second chapter gives a brief history of the New South Wales railways and tramways, describing the main events or characteristics of each period and linking these to the Signals Branch and the development of signalling policies, particularly, of course, signal boxes.

The main feature of a signal box is normally the interlocking machine, relay panel, or computer based interlocking. Chapter 3 describes the types of interlockings used in NSW, including drawings and photographs.

Chapter 4 briefly discusses the organisation of the Signals Branch, and gives short biographies of the heads of the Branch and the staff that are known to have designed the signal boxes.

The materials used in construction of NSW signal boxes, and its fittings, are described in Chapter 5. This

includes a large number of detail photographs. This is followed by a very short chapter on the methodology and taxonomy of signal boxes.

This material takes rather less than half of the book; the remaining portion, about 220 pages, describes each design of signal box used in NSW. This section is divided into chapters on the early years; elevated mechanical signal boxes; platform level mechanical signal boxes; power signal boxes; signal boxes designed by other than the Signal Branch; miscellaneous designs; and tramway signal boxes. Each design style is fully described and illustrated by photographs – some in colour – and drawings. The drawings are by Greg Edwards. A list is given of each example of the type, and the examples are located on a map to show the spatial distribution.

The penultimate chapter briefly illustrates the signal boxes used on the other Australian railway systems, and the final chapter is a conclusion. At the end of the book is an alphabetical list of every NSW signal box, the date it was opened, the building type, and the volume it will be described in.

The book is well laid out, well illustrated, and the photographs and diagrams are reproduced to a high quality and at a large size.

Volumes 2, 3, and 4 of the series will be a gazetteer listing of the signal boxes – Volume 2 will cover the Metropolitan, Illawarra, and tramway signal boxes, Volume 3 the South and West signal boxes, and Volume 4 the Northern signal boxes. Volume 2 is expected to be published in September 2019, and Volumes 3 and 4 next year.

## SWAN HILL



Some more photos of the recently replaced signalling at Swan Hill. (Above) The ratchet quadrant on the platform that worked the Down Home. The lever is shown in the reverse position with the signal at clear. The Annett key was used to interlock the lever with the panel in the station office. (Below) The Up end points to the Freight Centre siding are plunger locked, however, they did not have a local quadrant to work the Down Home as trains did not arrive direct into these sidings. A push button is located on a post at the left – this controlled the Up Home signal protecting the level crossing. Putting the signal to danger allowed shunting of the freight centre without operating the flashing lights at the level crossing.





(Above) Looking in the Down direction from the station platform, with the now removed remnants of the Wharf line leading off to the right (the line had been removed beyond the level crossing). The points leading to the Wharf line were secured only by a hand locking bar and padlock, and never had anything more sophisticated. The points to No 2 Road, facing for arriving moves are plunger locked. (Below) Detail of the plunger locked points at the Down end. The Up Home was a light signal and electrically detected the points normal and the plunger in. There was a slightly greater risk with this arrangement over the older mechanical detector, as there is no interlocking between the points and the signal. With a mechanical detector the points are locked when the signal is at clear. With this arrangement there is nothing stopping the points from being released and reversed at any time. All photos Andrew Waugh

