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MINUTES OF MEETING HELD FRIDAY 20 MARCH, 2014, SURREY HILLS NEIGHBOURHOOD CENTRE, 1 BEDFORD AVENUE, SURREY HILLS

Present: – Wilfrid Brook, Glenn Cumming, Graeme Dunn, Michael Formaini, Ray Gomerski, Chris Gordon, Judy Gordon, Chris Guy, Bill Johnston, David Jones, Keith Lambert, Andrew McLean, Colin Rutledge, Brian Sherry, Peter Silva, Rod Smith, David Stosser and Andrew Wheatland.

Apologies: – Jon Churchward, Graeme Cleak, Steven Dunne, Chris King, David Langley, Steve Malpass, Tom Murray and Andrew Waugh.

In the absence of the President, The Vice – President, Mr. Bill Johnston, took the chair & opened the meeting at 20:57 hours, following the 2015 Annual General Meeting.

Minutes of the February 2015 Meeting: – Accepted as read. Glenn Cumming / Colin Rutledge. Carried.

Business Arising: – Nil.

Correspondence: – Invoice from Surrey Hills Neighbourhood Centre for hire of meeting room for 2015.

Payment sent to Surrey Hills Neighbourhood Centre for hire of meeting room for 2015.

Glenn Cumming / David Stosser. Carried.

Reports: – Glenn Cumming asked for suggestions for the 2015 signal box tour. Suggestions put forward included Glenhuntly – Burnley, Craigieburn – Seymour and Epping – Craigieburn.

Colin Rutledge reported on recent developments at the Archives Room in Seymour with Victrack about to undertake some repairs to the building.

General Business: – Glenn Cumming reminded all members that membership renewals for 2015 are now payable.

Keith Lambert provided details about various works in the Metropolitan District. A summary of the discussion follows: –

- The mainline crossovers and sidings at St Albans will be removed this weekend.
- An absolute occupation between Burnley – Darling next weekend will allow for works at Burke Road, Gardiner.
- An absolute occupation in June 2015 will allow for works at Blackburn Road, Blackburn.
- An absolute occupation in July 2015 will allow for works at North Road, Ormond.
- An absolute occupation between Richmond Junction – Camberwell over the first weekend in April 2015 will allow for signalling works.
- Future works between Richmond Junction – Camberwell will involve the provision of axle counters to replace track circuits and 25 Hz equipment.

(Front cover) A1 Class tram 257 came to grief on a city bound service at Glenhuntly level crossing at around 8.30 am on 1 April 2015. The catch point spectacularly failed to prevent the errant tram from fouling the train lines. The tram not only overcame the slight rise to the train lines, it cleared the nearest two tracks, ran on the road for about 10 metres, and finally came to a stand straddling the third track. It is extremely fortunate that the edge of the hole in the concrete for the crossings engaged with the back of the right hand leading wheel. This brought the tram back to travelling parallel with the tram lines and prevented the tram from crashing into the foot crossing. It would appear that the underlying problem is that a significant portion of a modern trams braking depends on the magnetic track brakes. These have no effect once the tram is derailed. Photo Andrew Waugh

David Stosser asked about designs for the new railway station at Southland Shopping Centre.

Colin Rutledge reported that 32 level crossings between Traralgon – Bairnsdale will be converted to operation by axle counters during April 2015.

Andrew Wheatland described recent signal alterations at Lakeside on the Puffing Billy Railway.

Rod Smith asked about the current status of plans for the trial of high capacity signalling.

It was noted that any train not fitted with TPWS will be restricted to 15 km/h on the Regional Rail Link lines.

Meeting closed at 21:40 hours.

The next meeting will be on Friday 15 May, 2015 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 5/15 to WN 15/15 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.

- 01.02.2015 Clayton (SW 33/15, WN 6)**
On Sunday, 1.2., the pedestrian boom barriers at Clayton Rd (20.425 km) were replaced by automatic wicket gates with magnetic latches. Amend Diagram 103/13 (Clayton – Springvale).
- (03.02.2015) Book of Rules – Section 15 (SW 8/15 & 10/15, WN 5)**
A new Operating Procedure 135 (Supplementary Infrastructure Procedures) has been issued. This replaces the Section 15, Book of Rules, for the V/Line operated network.
The new procedures are Section 20 (Permit to foul the line) and 22 (Booking out of track). SW 64/08 is cancelled.
- (03.02.2015) RRL lines – Operation of dual control point machines (SW 12/15, WN 5)**
The selector and hand throw levers on the dual control point machines on the RRL lines between Southern Cross and Manor Junction are secured by signal maintenance padlocks. Manual operation of these points will be carried out by signal maintenance technicians.
- 14.02.2015 Newport Workshops (SW 65/15 & 66/15, WN 6)**
On Saturday, 14.2., the CCW levers on the following points were replaced by WSa levers:
- at both ends of No 2 Road leading to No 3 Road
 - leading towards Workshops Sidings Nos 1 – 2
 - leading towards Workshops Sidings Nos 3 – 6
- Amend Diagrams 39/11 (Newport Workshops – North Yard) and 87/06 (Newport Workshops – South Yard).
- 15.02.2015 Southern Cross (SW 63/15, WN 6)**
On Sunday, 15.2., the low speed aspect of Home 536 is now approach operated and time delayed. The low speed aspect will clear if the route is set from Home 536 towards the buffer stop in Platform 8, track circuits 422T and 429T are occupied, and a time delay of 16 seconds has expired.
- 15.02.2015 Frankston (SW 64/15, WN 6)**
On Sunday, 15.2., TPWS (TSS) was provided at Post 19.
- 16.02.2015 Redcliffs (TON 82/15, WN 7)**
On Monday, 16.2., the Down end points at Redcliffs were booked into use for track machines, and the Up end points were booked out of use. Redcliffs remains booked in for track machine use only.
- 20.02.2015 Morwell (TON 98/15, WN 8)**
On Friday, 20.2., No 2 Road (144.252 km – 145.028 km) was booked back into service. The point clips have been removed from Points MWL A and MWL B. Points MWL 15 are no longer disabled.
- 23.02.2015 Cowangie (TON 104/15 & 164/15, WN 9 & 13)**
On Monday, 23.2., the Gypsum siding was booked out of use. The main line points have been secured normal.
- 23.02.2015 Murrayville (TON 103/15, WN 9)**
On Monday, 23.2., the siding was booked back into use.
- (24.02.2015) Werribee - Geelong (SW 17/15, WN 8)**
Operating Procedure 54 (Werribee – Geelong Defective Signals) was reissued to reflect changes at Manor Junction and the altered safeworking channel. SW 138/14 was cancelled.

- (24.02.2015) **North Geelong, Geelong, South Geelong, Marshall, Waurn Ponds** (SW 17/15, WN 8)
Operating Procedures 60 (North Geelong Yard), 61 (Geelong), 62 (South Geelong), 63 (Marshall) and 64 (Waurn Ponds) were reissued to change the title of the signaller at Geelong to the Geelong Corridor Signaller, and the altered safeworking channel. SW 146/14 & 138/14 were cancelled.
- (24.02.2015) **Talbot** (SW 18/15, WN 8)
Diagram 100/13 (Talbot) replaced 158/12 as in service.
- 24.02.2015 **Tandara** (TON 107/15, WN 9)
On Tuesday, 24.2., the siding was booked out of use. The main line points have been secured normal.
- (03.03.2015) **Eaglehawk – Inglewood** (TON 116/15, WN 9)
Road control signage has been removed from all the passive level crossings on this line.
This affects Williams Rd (172.170 km), Schumakers Ln (aka Natalis Crossing) (174.353 km), Hermitage Rd (177.078 km), Landry Rd (181.625 km), Yorkshire Rd (aka Newbridge Rd) (183.424 km), Leichardt Rd (aka Leichardt Crossing or Leichardt West Rd) (188.646 km), Dunns Rd (aka Dunns Crossing, Bells Lucas Rd, or Morses/Dunns Rd) (2) (190.943 km), Collins Rd (aka Rothaker's Crossing or Bridgewater North – Derby Rd) (197.799 km), Hamiltons Rd (aka Cemetery Crossing) (201.940 km), Bridgewater – Serpentine Rd (aka Serpentine Rd) (204.256 km), Morses Rd (aka Morses Ln) (206.433 km), and Inglewood – Serpentine Rd (209.242 km).
- (03.03.2015) **Bonbeach – Frankston** (SW 89/15, WN 9)
Diagram 3/15 (Bonbeach – Frankston) replaced 41/12 account provision of TPWS at Post 19 Frankston.
- 11.03.2015 **Geelong** (SW 26/15, WN 11)
On Wednesday, 11.3., new Locomotive Depot Roads 6 & 7 were provided adjacent to the Vlocity fuelling facility. These roads have a standing room of 160 metres and are accessible from the Up and Down end. The points to these roads are fitted with WSa levers.
The East and West Gantry Crane Roads were abolished and the points leading to them secured away from the area. Locomotive Depot Roads 1, 2, & 3 had previously been taken out of service.
No 4 and 5 Roads in the Vlocity fuelling facility have been renumbered 8 & 9 Roads.
Amend Diagram 20/11 (Geelong Locomotive Depot).
- 12.03.2015 **Charlton** (TON 121/15, WN 10)
On Thursday, 12.3., remote monitoring equipment was installed at Calder Hwy (318.050 km).
- 19.03.2013 **Wallan** (TON 154/15, WN 13)
On Thursday, 19.3., the crossover (48.017 – 48.076 km) was booked into service. TON 293/14 was cancelled.
- 23.03.2015 **St Albans** (SW 93/15, WN 10)
As from 1600 hours Monday, 23.3., the signal box was permanently switched out.
No 3 Road, Sidings A, and Crossover 28/29 were abolished. Overhead wiring was removed from these tracks. Up Homes SAB20 & SAB21, and Dwarfs SAB25 & SAB30 were abolished. Points 24, 28, & 29 were secured normal with the motors disabled. Points 23 and Catch 22 were abolished.
Switch out lever 16 was secured reverse by a lock, with the key held by the Manager Network Safety.
Amend Diagram 19/14 (Albion – St Albans).
- 27.03.2015 **Traralgon – Bairnsdale** (TON 150/15, WN 12)
Between Monday, 23.3., and Friday, 27.3., V/Line MPM Signalling installed axle counters between Traralgon and Bairnsdale.
- 30.03.2015 **Bealiba** (SW 31/15, WN 13)
On Monday, 30.3., and Tuesday, 31.3., the plunger locking and fixed signals were abolished. The Up end main line points were abolished and access to the sidings are only available at the Down end.
Posts 1, 2, & 3 were abolished. Points B at the Down end were abolished. The signal quadrants and keyswitches were abolished. The plunger locking, rotary detectors, and point levers were abolished.
Operation of the flashing lights at Avoca – Bealiba Rd (266.544 km) is now automatic for all moves.
Amend Diagram 42/06 (Bealiba – Emu)
- 31.03.2015 **Newport Workshops, East Block** (WN 13)
On Tuesday, 31.3., the track in the East Block area was booked out of use. A baulk was provided on the lead to East Block at the Victrack/MTM boundary adjacent to overhead structure NW414+83.
- 31.03.2015 **Frankston – Stony Point** (SW 129/15, WN 14)
Commencing Tuesday, 31.3., Sprinter services have been suspended between Frankston and Stony Point. Rail traffic is not permitted to operate between Long Island Junction and Stony Point without the prior approval of the Chief Engineer and Manager Network Safety.

- 05.04.2015 Book of Rules, Section 3 Rule 1 (Detention at Automatic Signal) (SW 121/15, WN 13)**
Commencing 0001 hours on Saturday, 5.4., MTM will trial an automated voice mail system for passing an Automatic signal at Stop. When an MTM driver brings their train to a stand at an MTM Automatic signal at Stop, the Driver is to ring the voice mail system. After listening to a recorded message (emphasising the speed of the train after passing the signal), the driver must state their name, the number of the leading vehicle, and the identity of the signal.
- 07.04.2015 Epsom (SW 34/15, WN 14)**
On Tuesday, 7.4., a SPAD alarm was provided on the Bendigo Corridor console for Home EPM30. Control of EMP30 will continue to be by the local keyswitch and not from the Bendigo Corridor console.
- 09.04.2015 Burrumbeet (SW 27/15, 28/15 & 33/15, WN 11, 12 & 14)**
On Thursday, 9.4., boom barriers and automatic pedestrian wickets were provided at Avenue of Honour (138.002 km) (aka as Avenue Rd). Healthy state indicators, yellow whistle boards, and remote monitoring will be provided. Amend Diagram 76/11 (Wendouree – Beaufort).
- 13.04.2015 Traralgon - Bairnsdale (SW 35/15, SW 36/15, 37/15 & 40/15, WN 14 & 15)**
On Monday, 13.4., (or on completion of commissioning) the following active level crossing were converted to axle counter operation: Minniedale Rd (163.016 km); Flynnns Creek Rd (172.235 km); Wrights Lane (175.254 km); Rosedale – Flynnns Creek Rd (178.406 km); Friends Rd (179.202 km); Willung Rd (180.523 km); Longford Rd (184.298 km); Settlement Rd (191.638 km), Velore Rd (194.105 km), Aerodrome Rd (199.177 km), Sale – Heyford Rd (200.144 km), Myrtlebank Rd (210.315 km); Yuill/Baxter Rd (211.348 km); Princes Hwy (270.944 km), Bosworth Rd (272.484 km), and Ligar St (274.172 km).
Note that Flynnns Creek Rd was formerly known as Upper Flynnns Creek Rd, and Rosedale – Flynnns Creek Rd as Flynnns Creek Rd.
The flashing lights at Flynnns Creek Rd (172.235 km), Rosedale – Flynnns Creek Rd (178.406 km), and Myrtlebank Rd (210.315 km) were converted to boom barriers. Minniedale Rd is interfaced to the adjacent VicRoads traffic lights.
The existing healthy state indicators, yellow whistle boards, and remote monitoring equipment will remain in use. The level crossing predictor signage has been abolished.
- Rosedale*
A Down two position Automatic was provided 89 metres on the Down side of the platform. A three position keyswitch was provided at the Down end of the platform to control the Automatic signal. Restoring the signal to Stop with a train in the platform will cancel operation of the Willung Rd flashing lights. A notice board lettered 'Max Speed to Willung Rd 80 km/h' was provided 430 metres on the Up side of the platform.
- Bairnsdale*
The track circuits operating the signalling have also been converted to axle counters.
The former sidings on the Down side of the line (the Passenger Stabling Siding and the Timber Siding) have been abolished, and the points in No 1 Road leading to these sidings have been removed. These points were on the Down side of Post 4, and the Up side of the platform.
Notice boards lettered "Trains less than 50 km/h maximum speed to X 50 km/h" have been provided on the Up approach to Princes Hwy, and both approaches to Bosworth Rd. The speed limit will only apply to trains passing the boards at less than 50 km/h. A notice board lettered 'Maximum speed to Ligar St 60 km/h' is provided on the Up approach to Ligar St.
- Control Systems*
Aspectus control systems were provided at Centrol and the Warragul Signal Maintenance Depot to display the status of each axle counter operated level crossing, and the occupancy of the axle counter track sections between the upgraded level crossings.
The system will display an overview of the corridor between Home TRG26 at Traralgon and 205.293 km (between Hunt St and Post 1 at Sale), and between 206.825 km (Down end of Sale) and 275.442 km at Bairnsdale. The section through Sale (205.293 km – 206.825 km), including No 1 and 2 Roads, will not show as occupied.
Indications will be provided for all signals at Sale, and the Down end points at Sale, and all points and signals at Bairnsdale. Occupancy of the axle counter sections will control the signals at the Down end of Traralgon, the Down end of Sale, and all signals at Bairnsdale.
These systems will be used for axle counter resets and no local provision for resets has been made.
The Train Staff and Ticket System will continue to be used between Traralgon and Bairnsdale.
Amend Diagrams 46/13 (Traralgon), 24/13 (Rosedale – Sale), & 2/12 (Stratford). Diagram 100/14 (Bairnsdale) replaced 132/11.

Operating Procedure 130E (Bairnsdale) was re-issued and SW 156/10 was cancelled. Operating Procedure 136F (Traralgon – Bairnsdale, Operation of axle counter equipment) was issued.

(14.04.2015) Mildura

(SW 39/15, WN 15)

The keyswitch at the Down end points of the Mildura Cement Siding to operate Benetook Ave has been restored to service. Shunting at the Mildura Cement Siding will be conducted in accordance with Operating Procedure 85. SW 241/14 is cancelled.

The following alterations have come to hand.

25.11.2009 Wodonga Loop – West Wodonga

Between Monday, 23.11., and Wednesday, 25.11., Wodonga Loop was abolished and West Wodonga was established. The CTC sections will become Chiltern Loop – West Wodonga – (Wodonga Coal Sidings) - Albury. Wodonga Coal Sidings is an intermediate signal box that can be switched in or out. The points and signals at West Wodonga will be controlled via a Phoenix control system by the ARTC Main South C Train Controller at Junee.

Wodonga West.

Crossover 5, which forms a connection between the East and West Lines will be brought into service. The points are equipped with Vossloh-Cogifer point machines. Down Automatics ES2937 & EES2937 (293.700 km), Down Homes WOD6 & WOD18 (296.888 km), and Up Home Departure WOD8 (197.518 km) were provided. Notice Boards were provided at WOD18 (West Line) reading 'Commence Train Order Working' (for Up trains) and 'End Train Order Working' (for Down trains). Boards lettered 'West Line' and 'East Line' are provided at the Up end of Crossover 5. The route from WOD8 to the West Line will be inhibited until commissioning of Stage 3.

Predictor operation was provided for the flashing lights at Cochrane's Rd on both the East and West lines. Wodonga Loop

Wodonga Loop was abolished, including Points 1, 3, 5, & 7, and Homes WOD2, WOD4, WODU4, WOD6, WODU6, & WOD8. Down Automatic ES9721 was abolished.

Diagram 102/09 (Springhurst – Wodonga) replaced 148/07.

17.12.2009 Ararat, Murtoa, Horsham, Dimboola, Nhill

As from 0000 hours on Wednesday, 17.12., the standard gauge running lines and sidings at these stations were transferred from V/Line to ARTC.

Trains on the Murtoa – Hopetoun and Dimboola – Yaapeet lines will continue to be worked by V/Line Train Control. When it is necessary for trains to access Murtoa or Dimboola it will be necessary for a V/Line signaller to attend.

(22.02.2010) Deep Lead Loop

Alterations have been made so that the exit speed (from the loop?) is governed by a medium speed aspect. The speed restriction shown in TA02 Appendix 1 is cancelled.

(22.02.2010) Dimboola Loop

Alterations have been made so that the exit speed (from the loop?) is governed by a medium speed aspect. The speed restriction shown in TA02 Appendix 1 is cancelled.

(22.02.2010) Salisbury Loop

Alterations have been made so that the exit speed (from the loop?) is governed by a medium speed aspect. The speed restriction shown in TA02 Appendix 1 is cancelled.

(22.02.2010) Kaniva Loop

Alterations have been made so that the exit speed (from the loop?) is governed by a medium speed aspect. The speed restriction shown in TA02 Appendix 1 is cancelled.

(14.09.2010) Laverton, SCT and CRT Sidings

SN 1194/03 referring to operation of the sidings has been cancelled. Operating procedures for these sidings are now contained in an interface agreement with each siding holder.

(14.09.2010) Elders Grade Crossing

SN 179/06 referring to the operation of the grade crossing has been cancelled as the siding has been disconnected.

(14.09.2010) Pyrenees Loop

SN 3715/99 referring to operation of the loop has been cancelled.

30.09.2010 Myamyn

On Thursday, 30.09., boom barriers were provided at Ellis Rd (363.038 km). The boom barriers are operated by axle counters.

(22.09.2011) Lubeck

Due to sleeper condition, the Grain Corp siding continues to be booked out of use.

(22.09.2011) Horsham

Due to sleeper condition, the Grain Corp siding on the western leg continues to be booked out of use.

22.09.2011 Glen Thompson

On Wednesday, 22.9., the turnout in No 3 Road at 269.001 km was removed.

(11.10.2011) Gheringhap

The TR (fixed) gauge splitter at around 81.600 km has been replaced by a motorised "Type 82" set of points. The standard gauge line is the through route. Diverging moves on the broad gauge are limited to 35 km/h.

19.02.2012 Newport – Laverton Loop

Between Saturday, 11.2., and Wednesday, 19.2., the signalling associated with the CRT siding was commissioned, and Absolute Block Signalling replaced CTC between Newport and Laverton Loop.

Newport

West bound Home 10/30 was provided at Champion Road, and eastbound Home 10/26 (with co-acting Home 10/26P) was provided at Maddox Road. The 'END CTC START ABS' sign was removed from Home NPT724. The 'END ABS START CTC (SG ONLY)' sign was removed Home NPT707.

CRT Siding

The connection to the CRT Siding will now be worked by the Network Controller at Mile End. Points 29 and the rodded safety points were fitted with dual control point machines and renumbered Crossover 11. New Homes 15/6 (westbound), 15/10 (eastbound on bracket – from main line), and 15/12 (eastbound on bracket – from siding) were provided. Westbound Home 15/4 was renumbered 15/30. New eastbound Home 15/26 was provided on the Laverton side of the Kororoit Creek Rd overpass.

Laverton

Points 7 at the Up end of the Laverton Loop have been relocated in the Up direction to the Down side of Maidstone Rd. Westbound Home 20/6 was relocated to the Up side of Maidstone Rd and the aspects altered to allow higher speed moves into the Loop or Main line. Eastbound Homes 20/10 and 20/12 were relocated to a bracket mast located 'short of the overlap of Points 7' and 'at the overlap clearance point for Points 27'.

'END ABS START CTC' signs were provided on Homes 20/30 & 20/32. A 'START CTC' sign was provided on Home 20/34. An 'END CTC START ABS' sign was provided on Home 20/26.

Additional points were provided for future sidings. These have been secured normal.

Diagram 25/12 (Altona Junction - Laverton) replaced 45/10.

26.02.2012 Manor Loop

On Sunday, 26.2., the following alterations took place.

Down Arrival Home 38/6 was relocated to 36.300km. Up Departure Homes 38/10 & 38/12 were relocated to 36.685 km. Down Departure Homes 38/30 & 38/32 were relocated to 38.353 km. Up Arrival Home 38/26 was relocated to 38.884 km.

The Arrival Homes were altered to display Medium speed aspects for moves into the loop, and the Automatic signals in the rear (GGG1163 and GGG1418) were altered to display Reduce to Medium Speed. When the Arrival Home is at Stop, the Automatic in the rear will display Normal Speed Warning. When the route is set for the main line with the Departure Home at Stop, the Arrival Home will display Normal Speed Warning and the Automatic Clear Normal Speed. When the route is set for the loop with the Departure Home at Stop, the Arrival Home will display Medium Speed Warning with the Automatic displaying Reduce to Medium Speed.

27.03.2012 Westmere

On Tuesday, 27.3., the grain siding was booked out of use to allow the construction of the crossing loop.

18.04.2012 Longwood

On Wednesday, 18.4., Trefalls Lane (139.412 km) was closed to road traffic. All signage was removed.

14.05.2012 Westmere

On Monday, 14.5., the signalling was abolished. The V5P keyswitches and the point banners were removed. Automatics GV2101 and GV2158 were extinguished and crosses affixed.

25.05.2012 North Geelong – Gheringhap

A permanent speed restriction of 70 km/h has been imposed for straight movements over the dual gauge Points 45D (73.755 km South track) and 49D (73.835 km North track). A permanent speed restriction of 95 km/h has been imposed for straight movements over the dual gauge Points 57 (77.637 km).

25.06.2012 WIFT Siding

Train operators working trains to the Wimmera Intermodal Freight Terminal must confirm with the siding operator that the train can be accepted before requesting a path from ARTC. The ARTC Network Controller must not allow the train to depart from Murtoa Loop or Dimboola until the train can be accepted into the siding; the train crew must confirm this with the siding operator when departing Lubeck or Dimboola. The Network Controller must then call the route. The route will be stored by the system and will only be set, and Arrival Home will clear to a low speed aspect, after the approaching train passes the Automatic in the rear of the Home and a time delay has expired. Arrival clearance boards are provided to mark the point which the locomotive must pass before a Low Speed aspect is displayed. Drivers are cautioned not to assume that the signal will clear when passing this point.

The Home signals for trains departing the WIFT siding display a Medium Speed aspect with a '65' indicator. Departing trains must take care when accelerating to 65 km/h that it is safe to do so for other users of the siding. When the train has cleared the points, it may accelerate to line speed.

Countdown clearance boards are provided on the main line at the Horsham end of the siding. These indicate the distance from the last hand operated points in the siding. These indicate 500 metres, 1000 metres, and 1500 metres from the hand points.

(29.06.2012) Iluka Siding

TN5317/11 issued 18.11.2011 was amended and reissued.

Iluka Siding is at 324.706 km in the Grampians Loop – Chrome Loop section on the Up side of Burgins Rd. The points are secured by a Master Key lock and face the Up direction.

Through trains are not permitted to shunt Iluka Siding; all trains must lock away in the siding. Down trains arriving into the siding must pull forward until the rear of the train is clear of Burgins Rd. The competent employee must reverse the points, start the flashing lights at Burgins Rd using the test switch, and signal the driver to set back. Trains originating at Iluka Siding must proceed to Chrome Loop to run around. Up trains must not shunt Iluka Siding, but Up Light Engines from Portland may arrive direct into the siding.

26.11.2012 Gheringhap – Wingeel Loop

On Monday, 6.11. at 1630, Section Authority Working on the sections Gheringhap – Hesse BP – Wingeel Loop was replaced by CTC Working on the sections Gheringhap – Barwon Park Loop - Wingeel Loop. The control of all points and signals at Barwon Park Loop and Wingeel Loop will be by the ARTC Section Authority Network Controller at NCCW Mile End.

Gheringhap

Homes 83/30 and 83/32 became Home Departure signals and had been previously redressed to display Clear Normal Speed (83/30) and Clear Medium Speed (83/32). Arrival Home 83/26 had been previously relocated 140 metres in the Down direction to 83.686 km. It can now display Stop, Low Speed Warning (approach released to either the main or loop), Medium Speed Warning (to the loop), or Clear Normal Speed (to main). Repeating GV858 was reclassified an Automatic. It can display Stop, Normal Speed Warning, Clear Normal Speed, and Reduce to Medium Speed. The 'Commence' and 'End' Section Authority Boards and the Up Location Board were abolished.

Hesse Block Point

All signage and the location boards were removed.

Inverleigh

Repeating signals GV979 (97.773 km) and GV1040 (103.948 km) were removed. The siding points are now released by the Network Controller, and are detected normal by Homes 83/30 & 83/32 (Gheringhap), Automatic GV1001 & Homes BWP/10 & BW/12 (Barwon Park).

The main line points are worked by a lever secured by an electric release lock and rodded to Hayes derails. Point indicators are provided on both main line points, and these show a green arrow when the points are set for the main line, or a red dumbbell when the points are set for the siding. V5PSW keyswitches are provided adjacent to each set of points to take and cancel releases from the Network Controller. An 18 metre track circuit is provided on the approach to each set of points. This track circuit must be occupied for a release for a movement entering the siding.

Barwon Park Loop

Automatics GV1001 & GV1092, and Homes BWP/6, BWP/10, BWP/12, BWP/26, BWP/30, & BWP/32 were provided. The Departure Home signals will display Stop and Clear Medium Speed (from the loop) or Clear Normal Speed (from the main line). The Arrival Home signals will display Stop, Low Speed Warning (approach cleared to main line or loop), Medium Speed Warning/Clear Medium Speed (to loop) or Normal Speed Warning/Clear Normal Speed (to main). The Automatic in the rear of the Arrival Home

will display Stop, Normal Speed Warning, Clear Normal Speed, or Reduce to Medium Speed. Barwon Park Loop is provided with Emergency Mode Automatic working (see TA20 Section 17 Rule 8).

Wingee Loop

DICE operation and all associated signals and signs were abolished.

Full CTC control was provided. Automatic GV1155, Repeating GV1232, and Homes WGI/6, WGI/10, WGI/12, WGI/26, WGI/30, & WGI/32 were provided. All details are as for Barwon Park, except that the Repeating signal GV1232 will only display Warning and Proceed. 'End CTC Start Section Authority' signs are provided at Homes WGI/30 & WGI/32. An 'End Section Authority Start CTC' sign is provided at Home WGI/26. Wingee Loop is provided with Emergency Mode Automatic working (see TA20 Section 17 Rule 8).

12.12.2012 Barwon Park Loop

Due to short track circuits, the Barwon Park Rd (104.107 km) and Flemings Rd (106.451 km) will continue to operate until the rear of the train clears the opposing signal.

(08.02.2013) Newport

The point machine at Points 601 at Newport was changed to an M23A dual control point machine.

01.09.2013 Appleton Dock

On Sunday, 1.9., the derailleurs and ramp blocks provided at the Up and Down ends of Nos 4 & 5 Common User Roads were commissioned for use. The derailleurs will be secured by a V5PSW padlock off the rail unless required to be used.

02.09.2013 Maroona

On Monday, 2.2., Home 244/6 was relocated 190 metres towards Tatyoon, and Home 244/26 was relocated 234 metres towards Ararat.

(09.01.2014) Berrybank

GrainCorp has given up the lease of the siding. The siding is to be booked out of use, but will remain available for use by track machines.

(09.01.2014) Horsham

GrainCorp has given up the lease of the siding. The siding is to be booked out of use, but will remain available for use by track machines.

(09.01.2014) Gerang Gerung

GrainCorp has given up the lease of the siding. The siding is to be booked out of use, but will remain available for use by track machines.

(09.01.2014) Serviceton

GrainCorp has given up the lease of the siding. The siding is to be booked out of use, but will remain available for use by track machines.

20.01.2014 Moonee Ponds Creek Junction

On Monday, 20.01., the Freight Link Track was booked out of use for final construction activities. Points 205 will be secured normal. Signal 204 will be extinguished and it will be crossed. Signal 218 is now a V/Line signal, but the ARTC train controller works it.

(22.01.2014) ARTC Metro Control Boards

The ARTC Melbourne Metro Network Controller operates the points and signals on the dual gauge Main and Local lines from Sims St Junction to Tottenham and the NE line to Somerton Loop (inc).

The Metro Melbourne NC interfaces with the:

- V/Line Train Controller for movements to and from the Independent Goods Lines and Tottenham Yard at West Footscray Junction.
- V/Line Train Controller for movements along the Independent Goods Lines and to and from Tottenham Yard at Tottenham Junction and Tottenham Triangle.
- ARTC SW Network Controller for standard gauge movements between Tottenham Junction and Laverton Loop.
- V/Line Train Controller for broad gauge movements to or from Brooklyn.

TN 3177/12 is cancelled.

(02.07.2014) ARTC Metro Control Boards

The ARTC Melbourne Metro Network Controller operates the points and signals in the South Dynon, North Dynon Junction and Sims St Junction area. The Melbourne Metro Network Controller interfaces with the:

- V/Line Tottenham Area Train Controller for movements within the Melbourne Freight Terminal, and to and from North Dynon Sidings and South Kensington.

- Pacific National Yard Foreman/Shunt Crew for movements to and from Melbourne Freight Terminal/Melbourne Operations Terminal.
- Terminal operator for movements to and from the Pacific National wagon repair centre.

TN 1309/04, 2533/08, & 2529/09 were cancelled.

06.08.2014 ARTC Book of Rules (TA20)

On Wednesday, 6.8., an addendum to TA20 will be brought into service covering the Phoenix Electronic Train Order System.

14.08.2014 Portland

On Thursday, 14.8., control of the signalling will be transferred to the ARTC SW Network Controller at Mile End.

Portland is a Train Order Terminal Station. Movements departing Portland must not pass Signals 4 or 12 unless they are in possession of a Train Order, however shunt movements may do so.

Portland Kalari Siding

Kalari Siding is located between Henty Road and Points 2 (to the Portland Freight Gate). The points at each end of the siding are secured by Annett locks rodded to derails/crowders in the siding. The Annett key is held in a crosslock near Points 2. Removal of the key will hold Signals 1, 4, & 12 at Stop. Gates are provided at each end of the siding and there is a standing room of 214 metres with the gates closed and 294 metres with the gates open. A flashing light protection system is provided and must be in operation when trains are shunting the siding.

Portland Freight Gate

The line between the junction and the Portland Freight Gate (the former Portland station) is booked out of use. The trailable points at the junction (Points 2) have been secured to lie for the line to Portland Depot and the Harbour Trust sidings. The flashing light signals at Garden St and Kennedy St have been decommissioned.

Portland Depot

Points 21 and 22 leading to the Portland Depot are secured by Annett locks. The Annett key is released by the Network Controller. When the release has been given, Signals 11, 12, 13, & 14 will be held at Stop. A pushbutton is provided on Signal 14 to allow it to be cleared for moves to the Depot Siding.

Trains arriving from Heywood must be brought to a stand at the points, while points arriving from the Harbour Trust sidings must be brought to a stand at the Stop Board. The Annett key is to be released to the Driver and the points operated. For moves from the Harbour Trust sidings, the Driver must then use the pushbutton on Signal 14 to operate the Julia St flashing lights and clear the signal.

The Network Controller must operate Signal 13 for moves from the Depot Sidings to the Harbour Trust sidings.

Portland Harbour Trust Sidings

The Driver must obtain permission from the competent employee in charge of shunting prior to entering or leaving the Harbour Trust sidings. Prior to giving this permission to enter the sidings, the employee must ensure the road is set and clear. Permission must be obtained prior to the employee ceasing duty if it is necessary to enter the sidings while the employee is not on duty.

Before any locomotive proceeds beyond No 2 Quay Road, the competent employee must obtain the permission of the person in charge of the Port of Portland area. The level crossing protection equipment at Cliff St and Quay Rd are operated manually and must be turned on and off by the competent employee.

TN 3588/11 is cancelled.

(20.08.2014) Shunt Limit Signs in Phoenix Electronic Train Order Territory

Shunt Limit Signs in Phoenix Electronic Train Order Territory may either be white text on a red reflective or illuminated background (as described TA20), or black text on a white reflective or illuminated background.

15.09.2014 Somerton Loop

Effective Monday, 15.09., control of Somerton Loop will be transferre/d from NCCW Mile End to NCCS Junee. Control of the section Tullamarine Passing Lane - Somerton Loop rests with NCCW Mile End. The Network Controllers at Mile End and Junee must come to an agreement as to the priority of services before the departure Home signals at Tullamarine Passing Lane and Somerton Loop can be cleared.

21.10.2014 Oaklands

On Tuesday, 21.10., the 'Shunt Limit' and 'Do not proceed' signs were relocated to 317.559 km.

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A WALK AROUND BARNES



One of the most interesting remaining locations with VR mechanical signalling is not in Victoria at all, but is just over the border in New South Wales. Barnes is located 245.120 km from Melbourne (via Seymour) on the Deniliquin line, 12 km north of Echuca at the point where the railway crosses the Cobb Highway to Deniliquin. It is the junction for the mothballed Moulamein branch line and is the last remaining junction where the points are secured by plunger locking.

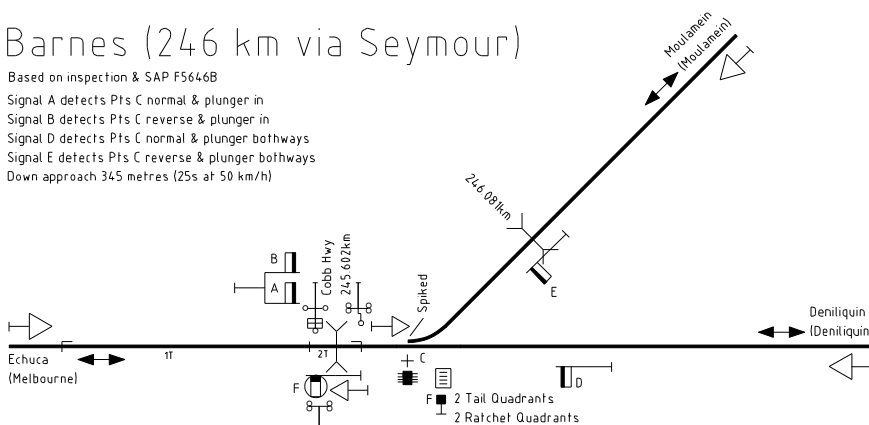
The location was originally opened as Balranald Junction in January 1924. It then consisted of a simple loop siding for construction of the Balranald line and was located at the actual point of divergence of the branch, just north of the road to Deniliquin (now the Cobb Highway). Balranald Junction was opened as a Train Staff & Ticket station in May 1924. Signals were provided in March 1926, just prior to the opening of the branch. In October 1926 a new station 'Barnes' was opened south of the Cobb Highway and the branch extended the short distance to the new station. On 1 August 1972 the station was closed and the junction was relocated north of Cobb Highway back at the actual point of divergence. At this time the junction was equipped with plunger locks. Flashing light signals were provided at Cobb Highway, together with Up (light) Home F in December 1978.

The photo above is looking south past the junction towards Echuca. In the foreground are the four levers operating the mechanical Home signals (with the box containing the push buttons for the light signal on the left). A little further is the junction with its WSA hand lever, plunger lock, and rotary detector. About half way to the level crossing is the Barnes block point signage. Then comes Up (light) Home F, the flashing lights at Cobb Highway, and the Down junction Homes. The former station was situated in vicinity of the trees in the background.

Barnes (246 km via Seymour)

Based on inspection & SAP F5646B

Signal A detects Pts C normal & plunger in
Signal B detects Pts C reverse & plunger in
Signal D detects Pts C normal & plunger bothways
Signal E detects Pts C reverse & plunger bothways
Down approach 345 metres (25s at 50 km/h)



The branch line (now only extending as far as Moulamein) is booked out of use as the only traffic source, rice, is carted by road to the rice mill in Deniliquin. The last recorded use of the branch line and junction was on 29 September 2009 when recording car FM100 ran to Caldwell on the branch.



(Above) A general view of the plunger locked junction points and associated signalling equipment. The points are worked by hand using the WSa lever in the immediate background. These are a set of Y layout points, and the plunger lock is situated outside the rails to the right of the WSa lever. Beyond the plunger lock is the rotary detector that interlocks the junction points with the four mechanical home signals. The plunger lock (below) is essentially a normal facing point lock with the plunger directly worked by a hand lever formed from a bell crank. Although a crude hand grip is formed at the end of the hand lever, signallers I've seen working a plunger lock usually use their boot. A locked catch holds the hand lever in or out. Unlike most plunger locks, those at junctions can lock the points both ways. Running from the detector are four channel rods. The centre two rods detect the position of the point blades, the leftmost rod detects the position of the plunger and is worked from the tail of the plunger crank, and the rightmost rod connects the plate bolted to the sleeper in advance of the points (above) and the detectors. This rod compensates for temperature changes as described in the next photo.





(Above) The four way rotary detector interlocks the mechanical Home signals with the points and the plunger lock. One challenge in Australia is ensuring that expansion and contraction of the rodding between the points and the detector does not bind the detector. These detectors are 'floating' to avoid this problem. Close inspection will show that the detectors are mounted on two round rods extending across the width of the detector. These rods slide in blocks – one at each end of the detector and one between the second and third detectors. The four rotary detectors are bolted to a channel rod which is connected to a plate secured midway between the two rails. As the channel rods connected to the detector blades change in length due to changes in temperature, the length of this final channel rod changes as well. This, in turn, moves the four detectors sideways keeping the correct alignment with the detector blades.

(Below) The mechanical signals at Barnes are worked from these four quadrant levers. The two nearest levers are 'tail quadrants' and these operate the two Down Home signals. The two ratchet quadrants work the Up Homes from the branch and from Deniliquin. These have a ratchet at the top of the lever to allow easy adjustment to the length of the signal wire. Tail quadrants are used when the signal is relatively close to the levers, while ratchet quadrants are used for signals further away. Behind the quadrants is the box containing the push buttons for the Up Home (light signal) protecting the Cobb Highway. The two padlocked chains secure the signal levers normal and reverse. Behind the levers, to the left, can be seen the stumps of the former cabin provided to house the Safeworker.





(Above) The Cobb Highway level crossing looking north towards the junction. After several bad accidents at highway crossings, the Victorian government funded a program to fit highway crossings with boom barriers. This program does not appear to have extended to the Victorian lines in NSW, and the two Deniliquin line active level crossings remain protected only by flashing lights. Home signals are provided on each side of the crossing so that trains can stand waiting for authority to proceed without causing the operation of the level crossing. The mechanical homes are mounted on a welded batten post.

(Below) The mechanical Home signals at Barnes haven't seen the painter in a long time, although the dry climate means that corrosion is not a major problem. The Down Homes are electrically lit and are equipped with contact boxes (the tall box between the spectacle and the arm) to cut out the approach track circuits from the level crossing control.





The flashing light installation at Barnes was designed by McKenzie and Holland (Australia) and the Up Home F protecting Cobb Highway (left) and the flashing light masts (right) at Cobb Highway betray their common origin. Both are pipe masts mounted in the standard McK&H split cast iron base, and they even have the same type of finial (although this is largely obscured by the backboard of the Home). Up Home F has a McKenzie and Holland low voltage DC searchlight mechanism. Operation of the level crossing by Up trains is unusual. No Up approach track circuit is provided and Up Home F is normally at Stop. All Up trains are required to stop adjacent to the signal quadrants where a member of the train crew will push the reverse button to clear Up Home F. This will start the flashing light signals operating, and, 12 seconds later, Up Home F will clear. The member of the train crew will then rejoin the train which will grind its way back up to 40 km/h for the onward run into Echuca. When the installation at Barnes was designed this was acceptable as all trains were required to stop to obtain the Echuca – Barnes electric staff.



(Left). The Barnes block point sign, with Up Home F behind it. The number at the top is the location of the block point with the name is in the middle. The lightning flash indicates the provision of TAILS equipment at the block point – although it is believed that the TAILS equipment has, in fact, been removed. There is something quite wrong about the distances at Barnes. The official distance, given in the Train Operating Data, is 245.120 kilometres measured via Seymour. (The official distance would be the location of the toe of the junction points.) Both block point boards, however, give the location as 257 kilometres. This is not the distance via Bendigo, which would be 261.880 kilometres. Even more curious, the Network Operating Data states that the Cobb Highway is at 245.602 kilometres, which would put it about 500 metres north of the junction! The 246 kilometre post is slightly on the Up side of the Up Home from Deniliquin, which would suggest that the Cobb Highway distance is correct, and the correct location for Barnes is about 245.700 kilometres. Where the 257 came from, however, is anyone's guess! (Below left) The Up location board from the Deniliquin line shows the 'correct' (official)



distance for Barnes (245 kilometres). The location boards at Barnes are 1000 metres in the rear of Home signals. Today location boards are normally provided at 2500 metres in the rear of the protected point, however as the line speed on the Deniliquin line is only 40 km/h for all trains the shorter distance remains acceptable.



Originally both mechanical Up Home signals were electrically lit, and the remains of the pole line for the power feed can still be seen. In October 1996, however, red and green reflectors replaced the conventional spectacle plates and electric lamps on both Up Home signals. These two photos of the Up Home from Deniliquin show how this was achieved. The lamp was replaced by a sheet of metal on which was mounted two discs of reflective material – the lower one green and the upper one red. The spectacle plate was replaced by a blinder made of sheet metal. When the arm is at Stop, the blinder obscures the green disc, and when at Clear it obscures the red disc. As electrical power continued to be required at Barnes for the flashing lights, it is assumed that the reflective discs were provided to reduce maintenance costs.





Above: the Up Home from the Moulamein line and the passive level crossing of a back road into Mathoura. One of the criticisms of lattice signal masts was that they were hard to see compared with the solid shape of a wooden mast. This has some validity – see how difficult it is to see the lower portion of this mast, particularly when rusty. Victoria solved this problem very simply – by wedging a sheet of galvanised steel between the corner angles and the lattice, as can be seen here. Painted white, it makes the mast easy to see. This mast also uses reflective discs instead of a lamp and conventional spectacle plate.

Left: When the Up Homes were equipped with electric lamps it was necessary to run power lines to each Home. The power was feed at 110V AC via an aerial power line to a cabinet at the foot of the signal. Here it was reduced to 12V and fed through a resistor to power the 10V lamp in the signal. A 90Ah battery was also floated across the low voltage power supply to provide supply if the main supply failed. The overhead line was 200lbs PVC insulated copper wire. All of this equipment could be recovered when the electric lamp was replaced by a reflector. This pole is constructed from redundant rail with a steel crosspiece and two insulators. The lower wire, cut short, was a guy wire to resist the side pull of the lead to the cabinet