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### MINUTES OF MEETING HELD FRIDAY 9 NOVEMBER 2018, AT THE SURREY HILLS NEIGHBOURHOOD CENTRE, 1 BEDFORD AVENUE, SURREY HILLS, VICTORIA.

- Present: – Ken Ashman, Glenn Cumming, Graeme Dunn, Michael Formaini, Chris Gordon, Judy Gordon, Graeme Henderson, Bill Johnston, David Jones, Keith Lambert, David Langberg, David Langley, Neil Lewis, Andrew McLean, Phillip Miller, Colin Rutledge, Laurie Savage, David Stosser, Bob Taaffe and Andrew Wheatland.
- Apologies: – Brian Sherry, Peter Silva and Andrew Waugh.
- Visitors: – Paul Horder and James Sinclair.
- The President, Mr. David Langley, took the chair & opened the meeting at 20:03 hours.
- Minutes of the September 2018 Meeting: – Accepted as read. Laurie Savage / Bill Johnston. Carried.
- Business Arising: – Nil.
- Correspondence: – Letter to David Ward at Metro Trains Melbourne thanking him for granting permission for the signal box tour.  
 Letter to Surrey Hills Neighbourhood Centre with dates for meetings in 2019.  
 Thank you card received from the family of Wilfrid Brook.  
 David Stosser / Phillip Miller. Carried.
- Reports: – Tours. A report on the successful signal box tour in September 2018 was provided. Suggestions are invited for future tours.
- General Business: – Bill Johnston spoke about the current rules of the SRSV (dating from 1991) and suggested changes were needed to bring them up to date.  
 Keith Lambert provided details about various projects in the Metropolitan District. A summary of the discussion follows: –
- A proposal to remove Number 3 Road at Flemington Racecourse because of clearance problems between roads and requirements to provide footpaths for drivers.
  - Works have commenced at the South Yarra tunnel site.
  - A ten (10) day closure in January 2019 is planned for the Caulfield Local and Through Lines.
  - This will be followed by a five (5) day closure in March 2019 is planned for the Caulfield Local and Through Lines.
- Graeme Henderson was at Kensington for two (2) hours yesterday spoke about his observations.  
 Phillip Miller reported on an incident earlier this evening where an Xtrapolis train divided between Ringwood and Lilydale.

*(Front cover) The major news in this issue is the resignalling between Dandenong and Pakenham East, which forms part of the High Capacity Train project. This resignalling saw the replacement of almost all of the remaining signalling installed in the 1950s for the Eastern line duplication. It also saw the closure of the signal boxes at Berwick and Pakenham; the entire line beyond Caulfield is now controlled from the Dandenong Signalling Centre. This photo shows a Down Velocity departing Pakenham on the North Line under the new signal bridge carrying Homes PKM724/PKM726/PKM728. The large theatre indicator above the leftmost signal, PKM724, is an '80' indicator for the crossover to the South Line. Photo David Langley*

Ken Ashman provided details about various matters from the North Island in New Zealand. A summary of the discussion follows: –

- The new Auckland city link project was described. The project consists of the construction of a 3.5 km long double-track rail tunnel underneath Auckland's city centre, between Britomart Transport Centre and Mount Eden Railway Station.
- A new passenger service between Auckland – Hamilton is proposed to commence operations in 18 months.
- The section of line between Papakura – Pukekohe is to be re-signalled in preparation for future electrification.

David Langberg described current works on the Ballarat Line.

David Stosser asked about the future of North Geelong "C" Box. It was noted that a project is underway to replace the signal box but the finish date is not known.

David Stosser spoke about the fouling point deficiencies that had been noted in recent issues of the Weekly Notice.

Graeme Henderson reported that NSW electric loco 8606 had been returned to service to operate works trains through the Sydney City Loop tunnels.

Bob Taafe spoke about the progress of his gazetteer on NSW railway and tramway signal boxes. The gazetteer will be published in four (4) volumes – two (2) in 2019 and two (2) in 2020. Expressions of interest will be invited early in 2019.

Syllabus Item: – The President introduced member Ken Ashman of Hamilton, New Zealand, to present the Syllabus Item.

Ken addressed the meeting on the topic of timer relays and their use in signalling circuits.

Ken used a PowerPoint presentation to describe various styles and types of timer relays that had been used over the years.

The presentation included descriptions of their history, how they worked and their use in a variety of signalling circuits for different types of scenarios.

The descriptions were accompanied by images of various timer relays in Ken's collection along with some video footage of timer relays in action.

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

Meeting closed at 22:45 hours.

The next meeting will be on Saturday 16 February, 2019 at Diamond Valley Railway at Eltham.

## SIGNALLING ALTERATIONS

*The following alterations were published in WN 40/18 to WN 52/18, 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.*

- |                   |  |                 |
|-------------------|--|-----------------|
| <b>26.02.2018</b> | <p><b>Belgrave</b></p> <p>On Thursday, 26.2., an additional indicator lamp for signal L1379 was provided on the barge board of the Locomotive Workshops (the other indicator lamp is located under the former station verandah). These indicator lamps show yellow or green and operate as follows:</p> <ul style="list-style-type: none"> <li>• The yellow indication will indicate that the level crossing protection equipment will activate on the approach of a Down train or shunt movement (unchanged).</li> <li>• The yellow indication will be extinguished when the boom barriers are horizontal</li> <li>• The green indication will indicate that signal L1379 has cleared to at least the Warning position. This provides a positive indication to drivers propelling trains towards the level crossing that L1379 has cleared.</li> </ul> <p>The yellow light above the relay cabinet at the Down end of the platform operates as described above, but cannot display the green indication.</p> <p>The controls for L1379 and the signals on Post 2 have been modified. The four second delay between the booms being detected horizontal and the signals clearing has been removed.</p> | <b>(A 8/18)</b> |
| <b>14.08.2018</b> | <p><b>Menzies Creek</b></p> <p>Effective immediately a speed restriction of 5 mph has been imposed on Up movements between School Rd and the Down end of Platform 1. This speed restriction is to reduce the speed of Up trains approaching the pedestrian crossing over No 1 Road.</p>  | <b>(A 9/18)</b> |

20.08.2018	<b>Belgrave</b>	<b>(A 10/18)</b>
	<p>On Monday, 20.8., an Extended Approach track circuit 100 feet (30.4 metres) in length was provided in No 1 Rd between the end of the platform and the existing Down Approach track circuit for Old Monbulk Rd.</p> <p>The extended approach track allows earlier triggering of the level crossing protection equipment at Old Monbulk Rd, and which allows signal L1379 to clear immediately when one of the key switches is operated when either:</p> <ul style="list-style-type: none"><li>• The points are set for No 1 Rd and both the Down Approach and Extended Approach track circuits are clear</li><li>• The points are set for No 2 Rd and the Down Approach track circuit is clear. In this case it is essential that the 5 mph speed limit is strictly observed to ensure that sufficient time is available for the booms to fully lower before the train enters the crossing.</li></ul> <p>If the points are set for No 3 Rd, or the Extended Approach track circuit is occupied when the route is set for No 1 Rd, Signal L1379 will remain at Stop until the booms have become horizontal.</p> <p>The indicators (A 8/18) will continue to display yellow whenever L1379 is requiring approach activation and green when L1379 has cleared.</p>	
02.10.2018	<b>Rowsley</b>	<b>(SW 407/18, TON 156/18, WN 40 &amp; 41)</b>
	<p>On Tuesday, 2.10., circuit alterations were performed at Rowsley and No 2 Road was booked back into service.</p>	
03.10.2018	<b>Sutherland Loop</b>	<b>(SW 412/18, WN 41)</b>
	<p>On Wednesday, 3.10., Sutherland Loop (310.428 km) was restored to use.</p> <p>All crossing loops between Dunolly – Yelta have now been restored to use. The only intermediate sidings secured out of use are Curyo, Hattah, and Mildura Cement Siding. SW 389/18 is cancelled.</p>	
08.10.2018	<b>Ballarat</b>	<b>(TON 159/18, WN 41)</b>
	<p>On Monday, 8.10., Points E in Ballarat Yard (113.495 km) were booked out of service. The points will be removed as they are no longer required.</p>	
(09.10.2018)	<b>Corio – North Shore</b>	<b>(SW 410/18, WN 41)</b>
	<p>Diagram 30/18 (Corio – North Shore) replaced 34/11 as in service.</p>	
(09.10.2018)	<b>Caulfield</b>	<b>(SWP 5/18, WN 41)</b>
	<p>Clause 1B (Caulfield – Axle Counter Reset Configuration) has been added to the Caulfield Group Operating Procedures.</p>	
(09.10.2018)	<b>Stratford – Bairnsdale</b>	<b>(SW 414/18, WN 41)</b>
	<p>Diagrams 62/18 (Stratford – Hillside) and 28/18 (Bairnsdale) replaced 14/15 and 100/14 respectively as in service. The Bairnsdale diagram shows key switch updates that have occurred.</p>	
09.10.2018	<b>Rockbank</b>	<b>(SW 408/18, WN 40)</b>
	<p>On Tuesday, 9.10., the Up side (No 2) boom barrier at Paynes Rd (31.297 km) was relocated to make way for construction of a second track. A notice board lettered “Maximum Speed to Crossing 65 km/h” was provided for Down trains at RBK732. Amend Diagram 10/17 (Ardeer – Rockbank) &amp; 68/10 (Melton – Parwan).</p>	
09.10.2018	<b>Bacchus Marsh</b>	<b>(SW 411/18, WN 41)</b>
	<p>On Tuesday, 9.10., Points BMH29W were provided at 53.037 km on the Down side of Bacchus Marsh. The points are equipped with a dual control point machine and are secured normal.</p>	
11.10.2018	<b>Bonbeach – Carrum</b>	<b>(SW 371/18, WN 42)</b>
	<p>On Thursday, 11.10., a SPAD Alert board was provided on the Down line 400 metres on the approach side of F1107. The board reminds drivers that they are approaching F1107 which is a multiple SPAD signal.</p>	
12.10.2018	<b>North Melbourne</b>	<b>(SWP 6/18, WN 42)</b>
	<p>On Friday, 12.10., Operating Procedure 2 (Operation of NME508 Key Switch) was reissued. The main changes are that the minimum limits of the Absolute Occupation have increased to include the Down East Suburban line, and the process to cancel the signal inhibit has been altered.</p>	
13.10.2018	<b>Epping</b>	<b>(SW 363/18, WN 41)</b>
	<p>On Saturday, 13.10., the point machine on Points 23 was upgraded to the Clamp Lock SPX Mk3 type.</p>	
(16.10.2018)	<b>Flemington Racecourse</b>	<b>(SWP 7/18, WN 42)</b>
	<p>Operating Procedure 15B (Flemington Racecourse – Platform No 2 (4 Track)) was issued.</p> <p>This prevents a train carrying passengers from arriving into No 4 Track if there is a train already occupying the track. This restriction is because the track curves away from the platform at the Up end, resulting in a gap of approximately 1 metre between the train and the platform.</p>	
(16.10.2018)	<b>Mernda</b>	<b>(SWP 8/18, WN 42)</b>
	<p>Operating Procedure 1N (Mernda – Train Stabling Gates) was issued.</p>	

- 20.10.2018 Maryborough** (SW 435/18, WN 44)  
On Monday, 20.10., the Taylor St pedestrian crossing (224.820 km, Mildura line) was restored to use and the Christian St pedestrian crossing (224.600 km, Mildura line) was permanently closed. The footpath across the line at Christian St was removed and signs were provided to redirect pedestrians to the Taylor St crossing. SW 61/16 is cancelled.
- 22.10.2018 Richmond Junction – Parliament** (SW 377/18, WN 42)  
On Tuesday, 23.10., Home 657 (Caufield Underground Loop) was converted to a Siemens 2UL 36 dot LED head.
- 22.20.2018 Flinders St – North Melbourne** (SW 378/18, WN 42)  
Between Saturday, 20.10., and Monday, 22.10., the following alterations took place on the Northern Underground Loop:
- Homes 401, 403, 411, 415, 419, 427, 433, 439, 441, 447, 453, 457, 459, 461, 517, 589, 591, & 593 were converted to Siemens 2UL 36 dot LED heads.
  - The train stops for Homes 401, 403, 411, 417, 419, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 447, 461, 517, 589, & 593 were replaced by JA Mk4 types.
- (23.10.2018) Amphitheatre – Elmhurst** (SW 417/18, WN 43)  
Diagram 82/18 (Amphitheatre – Elmhurst) replaced 42/18 as in service. The alterations were a correction of Wiltshire Block Point to 237.350 km (as per in-service signage) and the position of the 238 kp on the diagram.
- (23.10.2018) Dunolly – Yelta** (SW 418/18, WN 43)  
Diagrams 12/18 (Bealiba – St Arnaud), 14/18 (Sutherland – Watchem), 16/18 (Birchip – Woomelang), 32/18 (Lascelles – Nunga), 44/18 (Ouyen – Carwarp), 34/18 (Yatpool – Irymple), and 38/18 (Mildura – Yelta) replaced 112/14 (Bealiba – Emu), 26/07 & 74/06 (St Arnaud), 14/08 (Sutherland – Cope Cope), 70/12 (Donald Loop – Morton Plains), 32/08 & 4/07 (Birchip – Woomelang), 18/09 & 6/07 (Lascelles – Nunga), 10/15 (Ouyen – Carwarp), 16/14 (Yatpool – Irymple), and 28/16 (Mildura – Yelta) as in service.
- (23.10.2018) Linga – Murrayville** (SW 419/18, WN 43)  
Diagram 80/18 (Linga – Murrayville) replaced 72/18 as in service.
- (23.10.2018) Stratford – Hillside** (SW 425/18, WN 43)  
Diagram 84/18 (Stratford – Hillside) replaced 62/18 as in service. The alterations were PCR upgrades (SW 348/18) and an altered Avon River noticeboard (NA\_NSP\_02-26)
- 23.10.2018 Quambatook** (TON 167/18, WN 44)  
On Tuesday, 23.10., Quambatook siding (345.049 km to 345.679 km) was booked out of service.
- 23.10.2018 Sydenham** (SW 362/18, WN 41)  
Between Thursday, 18.10, and Tuesday, 23.10., the Up and Down side pedestrian crossings were removed. Fences were provided to prevent public access to the closed crossings. No changes will be made to the interlocking or control panel at Craigieburn, or the JZA telemetry field stations.
- 26.10.2018 Upfield** (SW 388/18, WN 43)  
On Friday, 26.10., testing of the TCMS key switch occurred between the Coburg SER and Upfield signal box. The key switch at Upfield was connected to the PMUX and the Sigmap data was updated to allow testing of the key switch. When the testing is completed the original Sigmap data was restored.
- 29.10.2018 Maryborough** (SW 426/18, 430/18, & 434/18 WN 43 & 44)  
Between Saturday, 27.10, and Monday, 29.10., three standard gauge loop tracks were provided in the yard on the Up side of the main line. Only the second track will be commissioned for use and will be known as No 2 Road. This road will have a clear standing room of 651 metres between catch points. The first and third tracks will not be available for use.
- The signalling will only permit Down trains to be signalled via No 2 Road.
- Down Home MYB6 was equipped with 'V' and 'S' indicators. The gauge of the approach train must be proved before MYB6 can clear. Dwarfs MYB12 and MYB32 were provided at the Up and Down ends (respectively) for moves from No 2 Road. Both of these Dwarfs can display a Clear Low Speed aspect.
- The existing dual gauge fixed turnout at the Up end in advance of MYB6 was numbered MYB3 and the existing gauge transfer on the Down side of MYB6 was relocated to a point between the fixed turnout MYB3 and Home MYB6.
- Points MYB5U and associated Catch MYB5D were provided at the Up end to lead from the main line to No 2 Road. Points MYB9 were provided on the Down side of Inkerman St and will be secured reverse to lie for No 2 Road. Points MYB17D and associated Catch MYB17U were provided at the Down end to lead to No 2 Road. Points MYB15 were provided and will be secured reverse to lie for No 2 Road. All points and catches are provided with dual control point machines.
- Home MYB24 from the Moolort line was abolished.
- Operating Procedure 80 (Maryborough) was reissued. SW 370/18 is cancelled.

Amend Diagram 68/18 (Maryborough).

- (30.20.2018) Newport** (SW 409/18, WN 44)  
Commencing forthwith, the blocking facility must be applied to Points 606 due to fouling point deficiencies. The blocking facilities can only be removed to operate Points 606 when a movement from the Altona Car sidings to No 2 Track (Up platform) is NOT signalled.
- (30.10.2018) Maryborough** (SW 433/18, WN 44)  
Diagram 86/18 (Maryborough) replaced 68/18 as in service.
- (30.10.2018) Broadmeadows** (SW 400/18, WN 44)  
Commencing forthwith due to fouling point deficiencies, Crossover 424 was secured normal. Routes between No 1 Track (Platform 2) and the Up Main line or Up Albion Goods line will not be available in either direction.
- (30.10.2018) Flinders Street** (SW 399/18, SW 401/18, & 406/18 WN 44)  
Commencing forthwith, the following routing restrictions will apply due to fouling point deficiencies:
- Home 740 has been altered to only display 'Low Speed Caution' for movements from the Up Through Suburban line towards Platform No 10 over Points 644 reverse. The Signaller, Caulfield Panel, must not clear Home 740 for this movement (i.e. select a Low Speed movement) unless the tracks between Homes 740 and 742 are indicated as clear (unless a parallel movement is being signalled over Points 661 reverse). Track circuit alterations to 651T and 740T on Saturday, 27.10., allowed the removal of this routing restriction.
  - Prior to signalling a train through No 9A East Track, the Signaller must block Points 834 normal. The block must not be removed until the train has cleared Home 934 (for movements toward Spencer St [sic]) or Home 936 (for movements toward Richmond).
  - Track 1A was booked out of service. Points 052 were secured reverse, and Points 053 and 055 were secured normal.
- (30.10.2018) Richmond Junction** (SW 399/18, WN 44)  
Commencing forthwith, it will not be possible to route a movement from the Caulfield Through Loop Ramp to the Down Sandringham via Points 687 reverse due to fouling point deficiencies. The route via Points 686 reverse and Points 687 normal will remain available.
- (30.10.2018) Upper Fern Tree Gully** (SW 404/18, WN 44)  
Commencing forthwith due to fouling point deficiencies, the blocking facility must be applied to Lever 16. The blocking facility can only be removed when No 2 Track (Up platform) is not occupied by a Down train.
- 31.10.2018 Ararat** (SW 421/18 & SW 422/18, WN 43)  
On Wednesday, 31.10., boom barriers were provided at the passive crossings at Warrayadin Rd (266.654 km) and Hopkins River Rd (265.803 km) on the Maryborough line. Operation will be by axle counters. Healthy state indicators, yellow whistle boards, and remote monitoring was provided. Amend Diagram 82/18 (Amphitheatre – Elmhurst).
- 01.11.2018 Elmhurst** (SW 423/18, WN 42)  
On Thursday, 1.11., boom barriers were provided at the passive crossing at Elmhurst – Glenpatrick Rd (239.681 km). This crossing was renamed 'Clarke St (Elmhurst – Glenpatrick Rd)' to match the local road signage. Operation will be by axle counters. Healthy state indicators, yellow whistle boards, and remote monitoring was provided. Amend Diagram 82/18 (Amphitheatre – Elmhurst).
- 01.11.2018 Homebush** (SW 424/18, WN 42)  
On Thursday, 1.11., boom barriers were provided at the passive crossing at Sims Lane (206.096 km). Operation will be by axle counters. Healthy state indicators, yellow whistle boards, and remote monitoring was provided. Amend Diagram 40/18 (Bung Bong - Avoca).
- 07.11.2018 Bacchus Marsh** (TON 176/18, WN 45)  
On Wednesday, 7.11., the Turntable siding (50.605 km) was booked out of service due to construction activities.
- 08.11.2018 Geelong** (TON 178/18, WN 46)  
On Thursday, 8.11., the Geelong Loco Depot Refueling siding was booked out of service to allow for a temporary fuel tank to be stored on the concrete pad on the siding. The WSA points have been secured away from the siding and baulks have been provided at the Up end of the concrete pad on the siding.
- 09.11.2018 Bacchus Marsh** (TON 180/18, WN 46)  
On Friday, 9.11., a portion of the Turntable siding was restored to use to allow it to be used to stable Track Machines. Baulks have been provided giving 60 metres of clear stabling distance.
- 12.11.2018 Flemington Racecourse** (SW 413/18, WN 46)  
On Monday, 12.11., Sidings 2 & 3 were booked out of service. Points 436 & 438 and Derail 436 were secured normal.

- 18.11.2018 Epping** (SW 416/18, WN 46)  
On Sunday, 18.11., the point machines on Points 50, 52, and 54 were replaced by SPX Mk 3 clamp lock point machines.
- (20.11.2018) North Ballarat Junction** (SW 439/18, WN 47)  
Diagram 94/18 (North Ballarat Junction) replaced 16/15 as in service.
- (20.11.2018) Richmond Junction** (SW 443/18, WN 47)  
The operating restriction over Points 262 has been cancelled due to correction of the fouling point deficiencies. SW 407/18 is cancelled.
- 23.11.2018 Newport Workshops** (SW 453/18, WN 48)  
On Friday, 23.11., the Garden Platform No 3 Track was booked out of service due to stored rolling stock preventing routine inspection of the line. Baulks were provided at the Up end of No 3 Track clear of the fouling point of No 2 Track. Note that No 2 Track remains booked out of service.
- (27.11.2018) Woorinen** (SW 451/18, WN 48)  
The Up and Down end main line points were abolished. The point levers, hand locking bars, derail blocks, and the intermediate siding board were removed. TON 32/12 is cancelled.  
Note that the Woorinen AWB Out Loading facility (358.571 km) remains in use.  
Amend Diagram 62/11 (Woorinen – Piangil).
- (27.11.2018) Pira** (SW 451/18, WN 48)  
The Up and Down end main line points were abolished. The point levers, hand locking bars, derail blocks, and the intermediate siding board were removed. TON 274/12 is cancelled.  
Amend Diagram 62/11 (Woorinen – Piangil).
- (27.11.2018) Miralie** (SW 451/18, WN 48)  
The Up and Down end main line points were abolished. The point lever, hand locking bar, derail block, and the intermediate siding board were removed. TON 46/12 is cancelled.  
Amend Diagram 62/11 (Woorinen – Piangil).
- (27.11.2018) Seymour** (SW 452/18, WN 49)  
Operating Procedures 104 (Seymour Standard Gauge Locomotive Depot sidings) and 105 (Seymour Broad Gauge Locomotive Depot sidings) were reissued. The procedures were updated due to the provision of a common set of keys for securing the points to the standard gauge turntable lead and the northern entrance of the Heritage Centre; a procedure for locking out the standard gauge turntable lead, and a procedure for locking out the depot sidings for locomotive maintenance. SW 13/13 was cancelled.
- (27.11.2018) Upper Fern Tree Gully** (SW 445/18, WN 47)  
Advice has been received that Siding C has been booked out of service.
- 27.11.2018 Lilydale** (SW 452/18, WN 47)  
On Tuesday, 27.11., the hand points at the Up end of No 3 Track were booked out of service due to worn spreader bars and hangers. The points were secured to lie towards No 4 Track and baulks were provided in No 3 Track clear of the fouling point.
- 28.11.2018 Ararat – Wiltshire BP** (SW 443/18 & SW 444/18, WN 47)  
On Wednesday, 28.11., boom barriers were provided at the passive level crossings at Buangor – Ben Nevis Rd (253.772 km) and Matheson Rd (255.543 km). Operation is by Axle Counters. Healthy State indicators, yellow whistle boards, and remote monitoring equipment were provided. Amend Diagram 82/18 (Amphitheatre – Elmhurst).
- 29.11.2018 Amphitheatre** (SW 446/18, WN 47)  
On Thursday, 29.11., boom barriers were provided at the passive level crossing at Andersons Rd (223.087 km). Operation is by Axle Counters. A Healthy State indicator, yellow whistle boards, and remote monitoring equipment were provided. Amend Diagram 82/18 (Amphitheatre – Elmhurst).
- 01.12.2018 Westall – Pakenham & Cranbourne** (SW 446/18, 447/18, 457/18, & 469/18, WN 49 & 51)  
On Saturday, 1.12., the train service between Westall and Pakenham/Cranbourne was taken out of use to allow resignalling of Dandenong and the line to Pakenham.  
*Dandenong*  
Sidings 4, 5, and 9 were abolished.  
Points 607, 617, 621, 626, 629, 636, 646, 656, & 677 and Catch 643 were abolished. Dwarfs DNG707, DNG712, DNG734, DNG736, DNG743, DNG746, DNG756, & DNG778 were abolished. Automatics DNG700 & DNG759 were abolished. Homes DNG711, DNG713, DNG770, DNG771 & DNG721 were abolished.  
The Sigview panel was abolished.  
*Dandenong – Pakenham*  
Automatics D1007, D1033, D1097, D1152, D1098, D1181, D1204, D1284, D1291, D1338, D1339, D1387, D1410, D1470, D1497, D1524, D1577, D1578, D1645, D1648, D1712, D1721, & D1800 were abolished.

*Berwick*

The control panel was abolished. Homes 28 & 32 were abolished. Dwarf 10 was abolished.

*Pakenham*

The Westcad panel was abolished. Controlled Automatics D1799 (PKM4) & D1824 (PKM10) was abolished. Home Departures PKM40 & PKM42 were abolished. Homes PKM6, PKM12, PKM14, PKM16, PKM24, PKM26, PKM28, PKM30, PKM32, PKM34, & PKM38 were abolished. Dwarfs PKM8 and PKM36 were abolished.

*Pakenham – Pakenham East*

Automatics D626, DD626, D627 & DD627 were abolished.

- 01.12.2018 Pakenham – Pakenham East (SW 211/18, WN 49)**  
At 0200 hours on Saturday, 1.12., responsibility for the section of line between Pakenham (60.825 km) and the signal gantry on the Down side of Mount Ararat Rd (64.600 km) was transferred from V/Line to MTM. The train control boundary between Metrol and Centrol will now be 64.600 km. The line between Pakenham and Pakenham East is now the responsibility of the Signaller, Dandenong.
- 08.12.2018 Bacchus Marsh (TON 199/18, WN 50)**  
On Saturday, 8.12., Nos 1, 3, & 4 Sidings (including A & D sidings) were booked out of use for the duration of the occupation.
- 09.12.2018 Ararat (SW 459/18, WN 50)**  
Between Saturday, 8.12., and Sunday 9.12., a mixed gauge diamond crossing was provided 50 metres on the Down side of Alfred St (at 209.660 km) in the broad gauge Ballarat line. The broad gauge line was slued away from the standard gauge Western line between Alfred St and the existing mixed gauge diamond crossing to allow room to install the new diamond. Amend Diagram 64/18 (Ararat).
- 10.12.2018 Belgrave (A 15/18)**  
On Monday, 10.12., a new Post 1 was provided at the Down end of the platform and the old post removed. The signals will be electrically lit.
- 11.12.2018 Lakeside (A 16/18)**  
On Tuesday, 11.12., rotating red lights were provided at the pedestrian gates on No 1 Road. One light was provided on each of the two pipe posts. The lights will operate during the pre-warning and closing sequences, but will be extinguished when the gates are fully closed. The key switch located on the Down end shelter post on No 1 Rd was relocated to the pipe post adjacent to the pedestrian crossing on the platform side.
- 13.12.2018 Dunneworthy (SW 458/18, WN 50)**  
On Thursday, 13.12., boom barriers were provided at the passive level crossing at Freeman Rd (256.632 km). Operation is by Axle Counters. A Healthy State indicator, yellow whistle boards, and remote monitoring equipment were provided. Amend Diagram 82/18 (Amphitheatre - Elmhurst).
- 13.12.2018 Avoca (SW 445/18, 454/18 & 7458/18, WN 47, 49, & 50)**  
On Thursday, 13.12., boom barriers were provided at the passive level crossing at Number One Creek Rd (214.384 km). Operation is by Axle Counters. A Healthy State indicator, yellow whistle boards, and remote monitoring equipment were provided. Amend Diagram 40/18 (Bung Bong - Avoca).
- 13.12.2018 Dandenong (SW 457/18, WN 49)**  
On Thursday, 13.12., a Westcad panel was provided. The area of signal control covers the area Dandenong to Pakenham East and Cranbourne.
- 15.12.2018 Dandenong - Hallam (SW 446/18, 482/18, 483/18, WN 49, 50, & 51)**  
On Saturday, 15.12., the resignalling of the Dandenong station area and the lines to the Up side of Hallam was commissioned. The passenger train service between Westall, Dandenong, and Cranbourne resumed on Monday, 17.12.  
The main track changes were
- Siding A was truncated at the Up end and the former connection to the Up main line was removed. The overhead wiring was also removed from this Siding.
  - The removal of the last roads – Nos 4, 5, & 9 Roads – in the former goods yard. The Up end connections to the Goods Yard remain intact, but secured out of service. The Down end connections have been removed.
  - The Cranbourne line has been duplicated from the point of divergence to near Greens Rd. New connections have been provided at the point of divergence to allow Down Cranbourne trains to access the new line from the Down Pakenham line. These connections are known as Dandenong East Junction
  - The Independent Goods Rd alongside the Cranbourne line has been truncated at the Down end, and the Down end connection to the Cranbourne line has been removed.
- Many of the signals in the Dandenong yard were replaced or relocated. The section between Dandenong East Junction and Hallam was resignalled for a closer headway. TPWS was provided on all main line Automatic and Home signals.



*Dandenong*

- Homes DNG700, DNG710, DNG711 & DNG762 were provided.
- Uncontrolled Home DNG608 & DNG611 were provided.
- Dwarfs DNG756 & DNG766 were provided.
- The following signals were relocated: Down Home DNG702 (122 metres in the Up direction); Down Home DNG704 (49 metres Up); Down Dwarf DNG714 (21 metres Up); Down Home DNG724 (46 metres Up); Up Home DNG715 (47 metres Up); DNG706 (17 metres Down); & DNG726 (46 metres Down).
- Several speed proving train stops were provided. One is in the Down line 97 metres on the Down side (in advance) of Home DNG702 leading towards Homes DNG704/DNG724. An Up speed proving train stop was provided 39 metres on the Down side of Platform 1 at 31.325 km. Two Up speed proving train stops were provided 62 metres (DNGU717) and 125 metres (DNGV717) on the Down side of Up Home DNG717.
- Points 614 were renumbered 625U.
- Siding A was reduced in length to 97 metres and the overhead wiring was removed. A fixed train stop (detected) was provided in the lead towards Siding A at 30.629 km.
- Sidings 3 & 4 were extended to provide a total length of 165 metres. Derails/Crowders were provided in No 3 Siding (632) & No 4 Siding (640). Friction arrestor buffers and buffer lights were provided in Nos 3 & 4 Sidings.
- The points between Sidings 1 & 2 were provided with a dual control point machine and numbered 656. Siding No 2 was extended to 345 metres. Derails/Crowders were provided in No 1 Siding (656) & No 2 Siding (666). Friction arrestor buffers and buffer lights were provided in Nos 1 & 2 Sidings.
- The train stabling compound gates at the entrance to Sidings No 1 & 2 (and Sidings 3 & 4) was automated. (These two security gates were not commissioned and were secured open.)
- Points 622, 632, 634, 640, 656, 666, & 673 have an auto normalising feature and will automatically restore to normal 10 seconds after the track circuit picks up.
- All the platforms were extended at the Down end: No 1 to a length of 183 metres, No 2 to 163 metres, and No 3 to 174 metres.
- New Crossovers 607 and 617 were provided approximately 100 metres from the Down end of the platforms.
- The station limits in the Down directions are from DNG700 to DNG610/DNG777, and in the Up from DNG753/DNG777 to DNG611.
- Note: SW 446/18 and Diagram 69/18 show a banner indicator DNG700BI and co-acting signals DNG716P and DNG710P. These were not provided.

*Dandenong East Junction - Hallam*

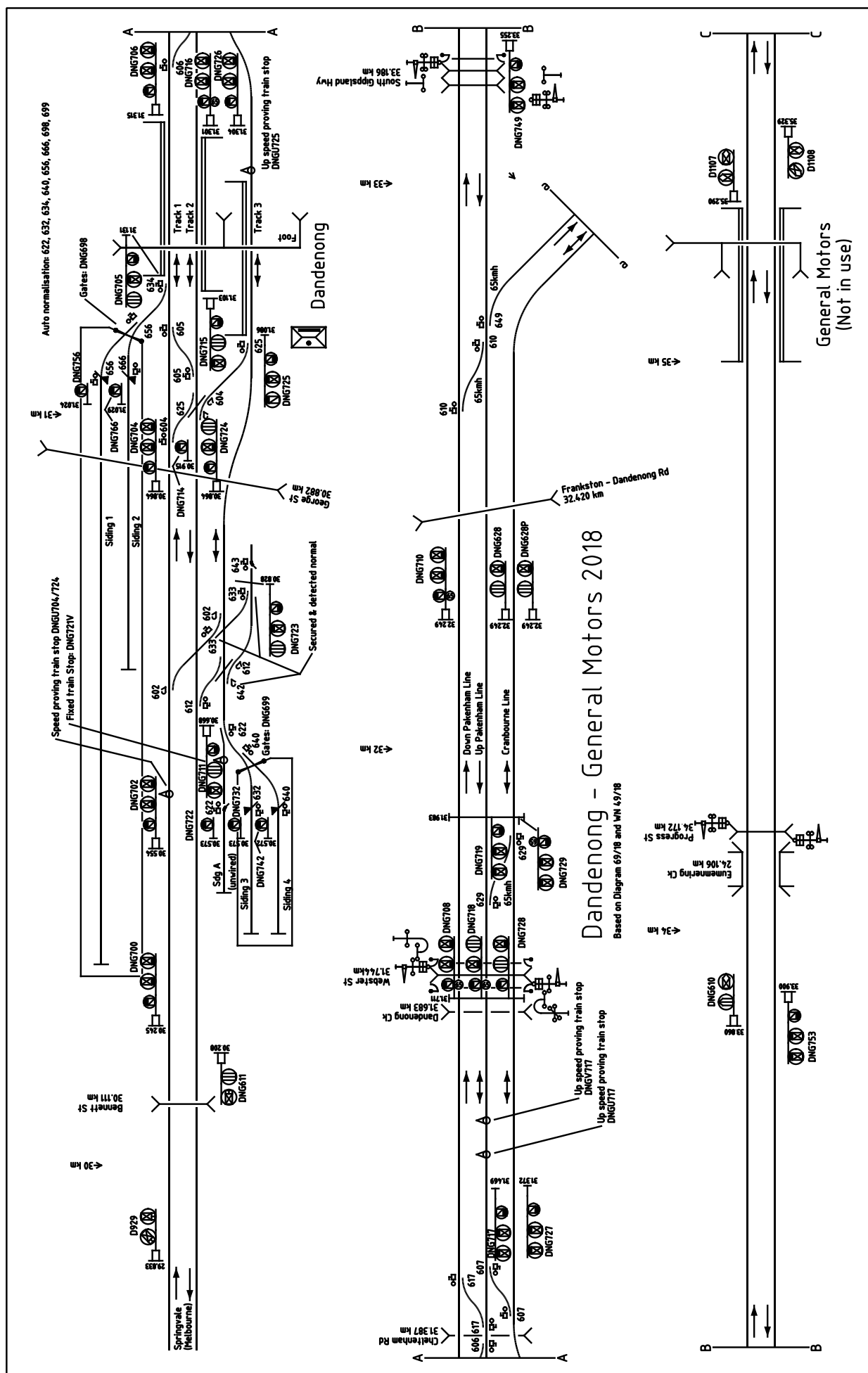
- Signal Gantry DNG708/718/728 was relocated 12 metres in the Up direction and Automatic DNG708 was redressed as a controlled Home signal with the same number. Signal Gantry DNG719/729 was relocated 5 metres in the Down direction. Crossover 629, located between these two gantries, was renewed with 1 in 15 turnouts.
- The Down side pedestrian boom barriers at South Gippsland Highway were replaced by pedestrian gates.
- A new junction between the Cranbourne line and the Pakenham line was provided at Dandenong East Junction at the point of divergence of the Cranbourne line. Crossover 610 and Points 649 and 677 were provided. All four turnouts are 1 in 15.
- Up Home DNG749 was relocated 594 metres in the Down direction to the Down side of South Gippsland Hwy.
- Up Home DNG753 was provided on the Pakenham line.
- New Automatics NDG610, D1107, D1108, D1133, & D1152 were provided between Dandenong East Junction and Hallam.

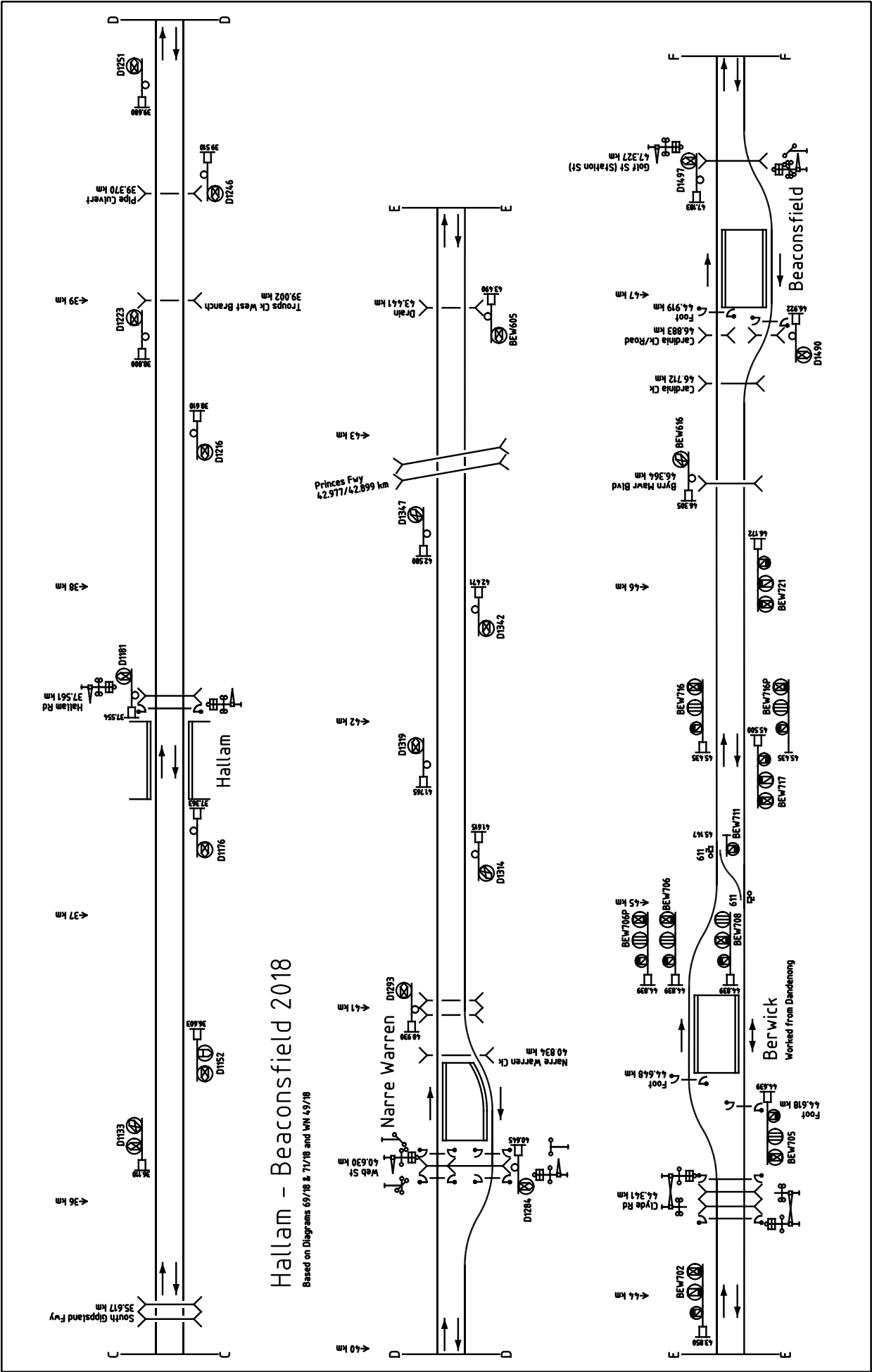
*Cranbourne line*

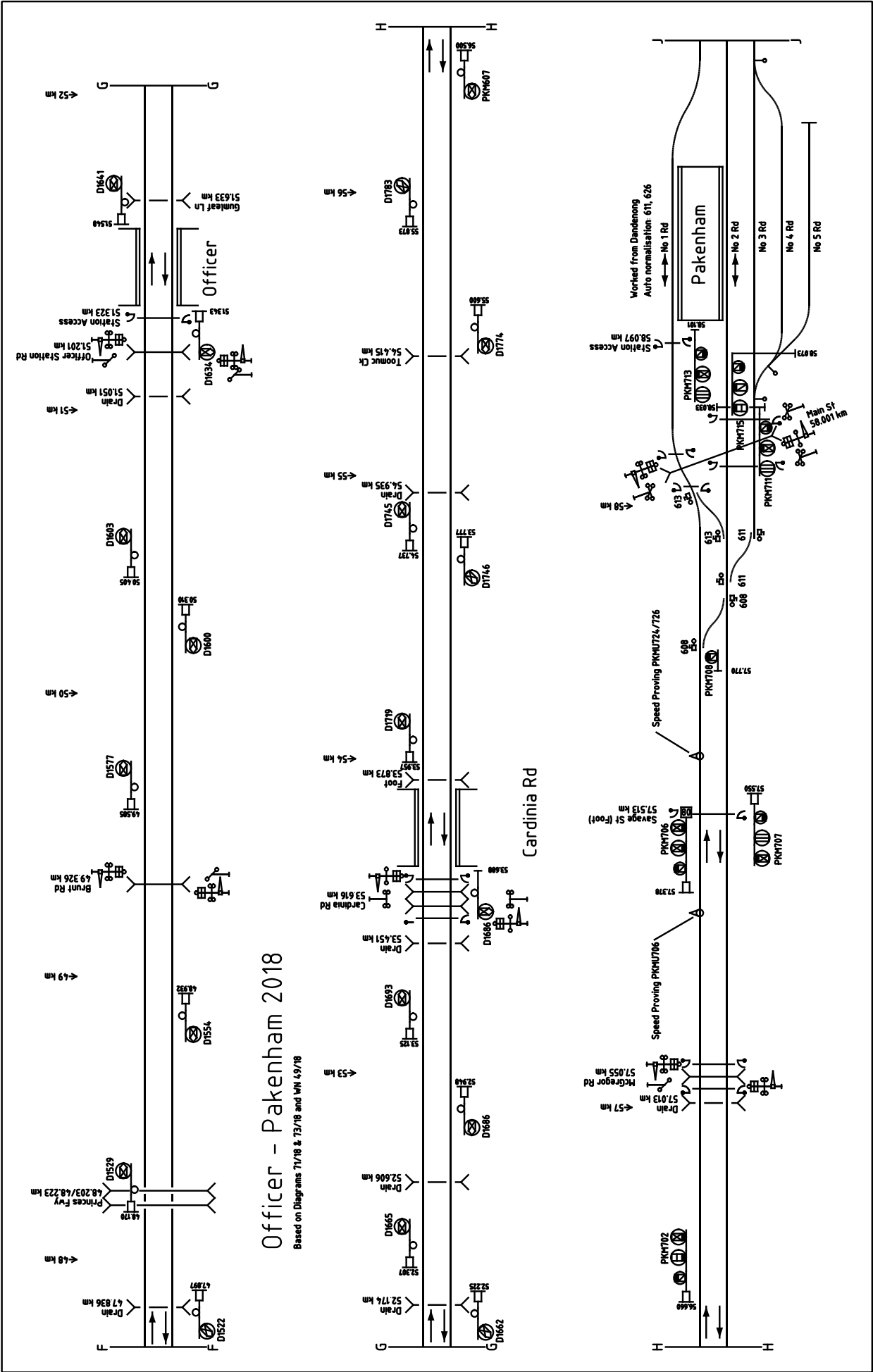
- A new 1 in 21 turnout, Points 677, was provided at the Down end of the duplication from Cranbourne.
- New Down Uncontrolled Home DNG660 was provided.
- New Down Home Departure DNG776 was provided.
- Homes DNG769, & DNG770 were provided.

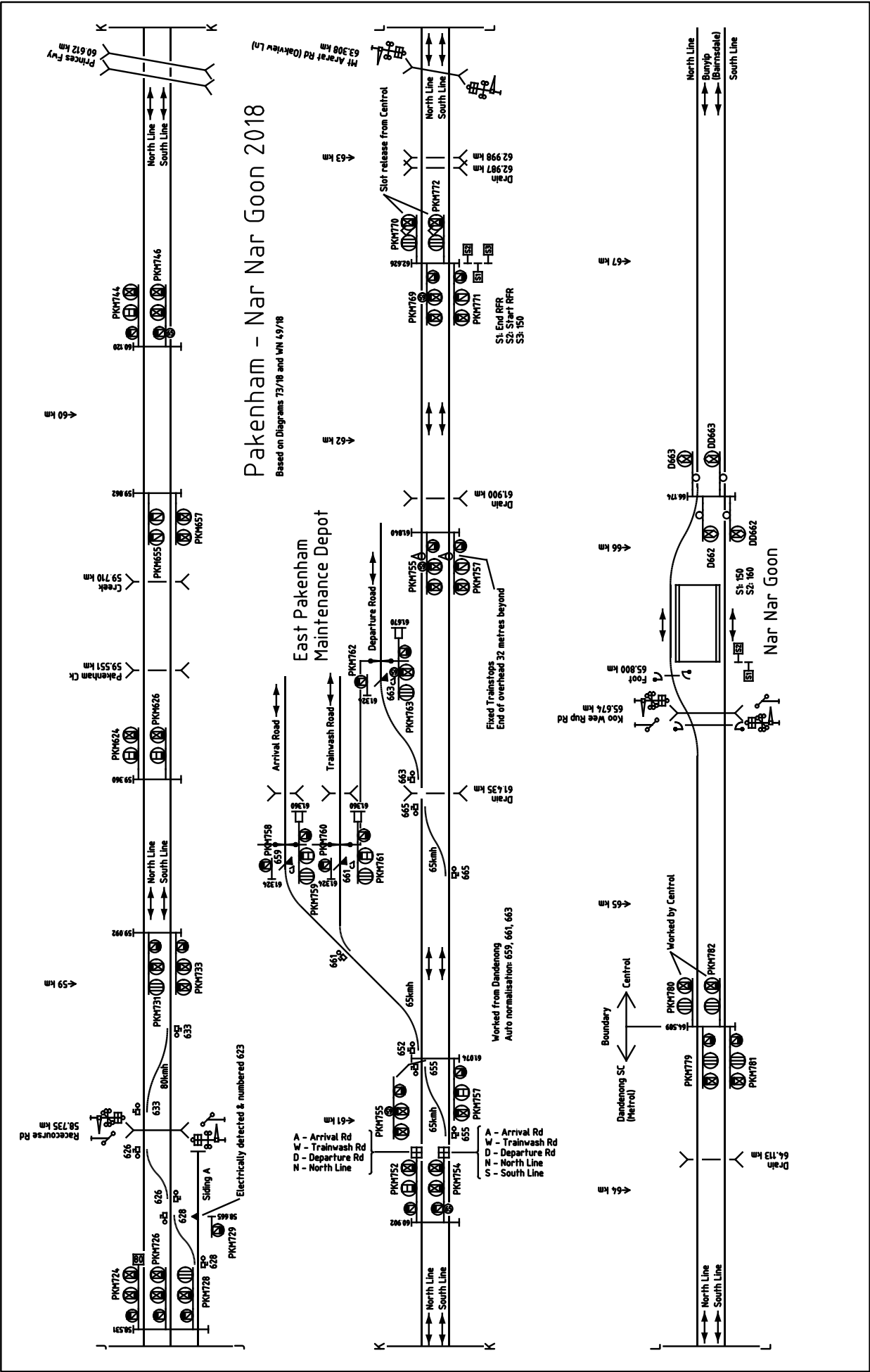
Axle counter train detection was extended through Dandenong from the end of the existing axle counter sections to Hallam and to Home DNG776 on the Down side of Greens Rd on the Cranbourne line.

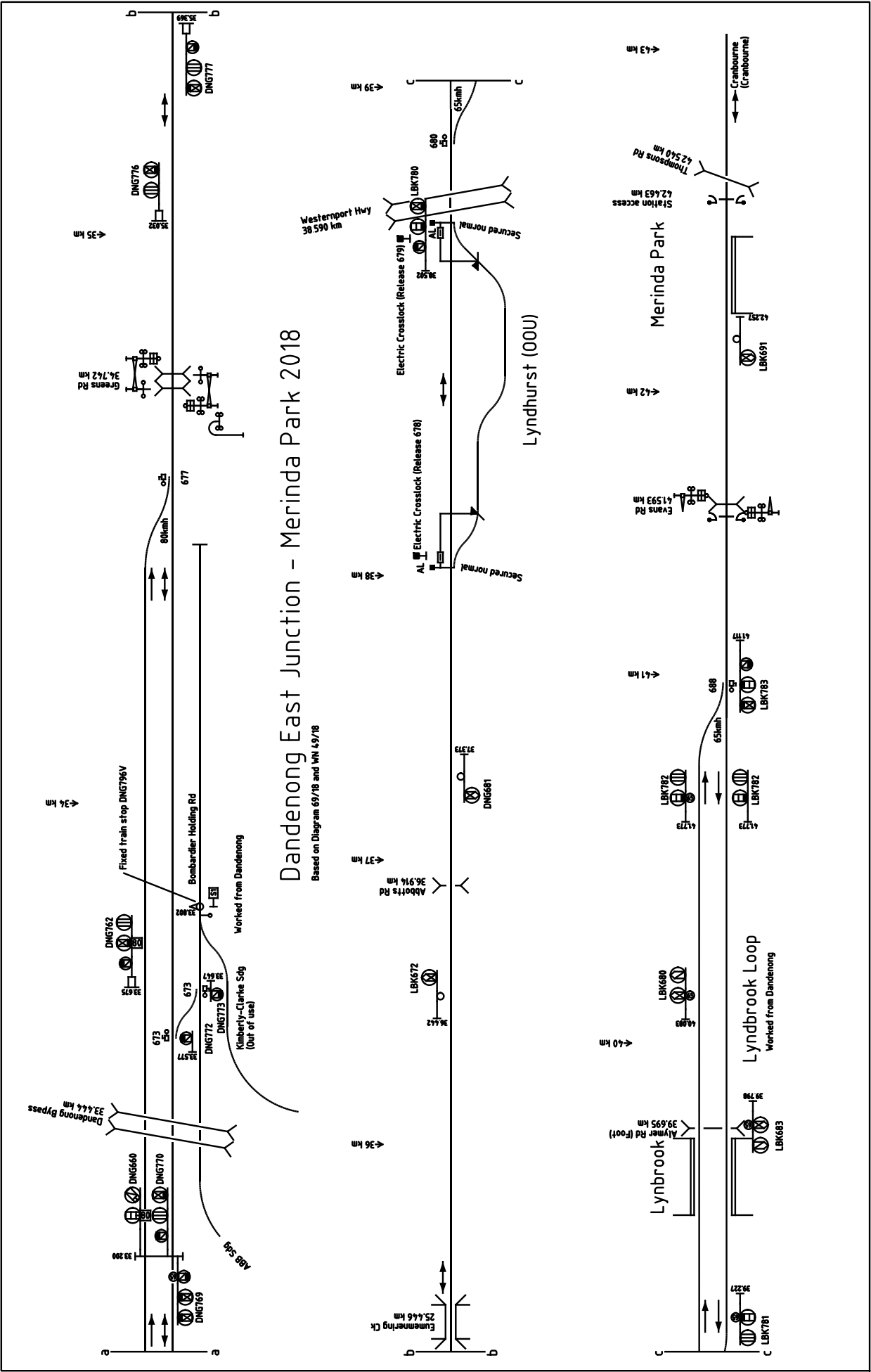
The Dandenong Sigview control panel was replaced by a Westcad control panel. A new Westrace CBI was installed to control the Dandenong area, and the Cranbourne line interlocking was replaced by a Westlock. Diagram 69/18 (Dandenong – Hallam) replaced 41/18.











- 16.12.2018 Shepparton (SW 462/18 & 464/18, WN 50)**  
 On Sunday, 16.12., Down Home SHP36 was provided at 182.316 km on the Up side of Fryers St (182.367 km). Home SHP36 displays normal speed aspects and is interlocked with the operation of the boom barriers at Fryers St and Andrew Fairley Ave. A low speed aspect was provided on Down Home SHP34. Home SHP34 is interlocked with the boom barriers and pedestrian gates at High St.  
 When Home SHP36 is at Stop, Home SHP34 will display a low speed aspect. Under these circumstances, the level crossing protection equipment at High St will continue to operate while the track circuits between SHP34 and SHP36 are occupied.  
 Operating Procedure 110 (Shepparton) was reissued (twice) and SW 183/13 was cancelled. Operating Procedure 110B (SW 44/13) was cancelled.  
 Diagram 76/18 (Mooroopna – Shepparton) replaced 60/13.
- 17.12.2018 Melton South (SW 460/18, WN 50)**  
 Between Saturday 8.12., and Monday, 17.12., the existing single line between 33.700 km and 35.100 km was slewed to provide room for a second track. The northern boom arm at Ferris Rd (34.613 km) was moved to allow for construction of the second track.
- 17.12.2018 Bacchus Marsh (SW 460/18, WN 50)**  
 Between Saturday 8.12., and Monday, 17.12., boom barriers replaced flashing lights at Kerrs Rd (53.417 km). The level crossing was widened from one track to three tracks (although the additional two tracks have not yet been installed).
- 17.12.2018 Ballan (SW 460/18, WN 50)**  
 Between Saturday 8.12., and Monday, 17.12., a new set of points (Points 21W) and dual control point machine were provided at 82.650 km facing Up trains. The points are secured normal.
- 17.12.2018 Millbrook (SW 460/18, WN 50)**  
 Between Saturday 8.12., and Monday, 17.12., the existing single line between 96.700 km and 98.400 km was slewed to provide room for a second track. Automatics A979G and A980G were relocated to accommodate the track slew.
- (18.12.2018) Ararat – Maryborough (SW 468/18, WN 51)**  
 Diagrams 88/18 (Amphitheatre – Elmhurst) and 90/18 (Bung Bong – Avoca) replaced 82/18 and 40/18 as in service. The changes were the additional active protection at a number of crossings.
- (18.12.2018) Carwarp (SW 466/18, WN 51)**  
 Carwarp Loop has been restored to use. SW 461/18 is cancelled.
- (18.12.2018) Mangalore – Creighton (SW 470/18, WN 51)**  
 Diagram 22/18 (Mangalore – Creighton) replaced 18/15 as in service.
- (18.12.2018) Upper Fern Tree Gully (SW 484/18, WN 51)**  
 Due to fouling point deficiencies, Points 19U were secured normal. Routes between No 3 Track and the single line at the Up end are not available.
- 18.12.2018 Ararat (SW 465/18, WN 50)**  
 Between Tuesday, 18.12., and Wednesday, 19.12., a new turnout facing Up movements was provided at 273.754 km on the Maryborough line. The new turnout is located between Stop Board 1 (271.500 km) and Stop Board 2 (274.000 km). The turnout will be secured normal. Amend 64/18 (Ararat).
- 20.12.2018 Dandenong – Pakenham East (SW 447/18, 469/18, 491/18, 492/18, 493/18, WN 49, 51, & 52)**  
 On Tuesday, 20.12., the resignalling of the line between Hallam and Pakenham East was commissioned. The suburban service between Dandenong and Pakenham resumed on Tuesday, 25.12. (this was to have resumed on Monday, 24.12., but was delayed), but the country passenger service beyond Pakenham was not restored until Monday, 14.1.  
 The new signalling has signals at much shorter intervals, and control of the interlockings at Berwick and Pakenham were transferred to Dandenong. The new interlocking at Pakenham East was commissioned and is worked from Dandenong.  
 The Automatic Block Signalling system is in force between Pakenham and Home Departures PKM770 & PKM772 at Pakenham East on both the North and South lines. The Automatic and Track Control system is in force between Pakenham East Home Departures PKM770 & PKM772 and Bunyip.  
 The ‘End’ and ‘Start RFR’ boards were relocated to the signal gantry at 62.626 km.  
 Axle counter train detection was extended from Hallam to Pakenham East. All signals between Hallam and Pakenham East are LEDs  
 TPWS was provided at all main line Automatic, Controlled Home and Uncontrolled Home signals.  
 New CBIs were provided for the sections Hallam – Berwick, Berwick – Officer, Officer – Pakenham, and Pakenham – Pakenham East.

*Hallam – Berwick*

Automatics D1176, D1181, D1216, D1223, D1246, D1251, D1284, D1293, D1314, D1342 & D1347 were provided.

*Berwick*

Automatics BEW605 & BEW616 were provided. Homes BEW702, BEW705, BEW706, BEW708, BEW717, BEW721 were provided. Dwarf BEW711 was provided.

The Up line pedestrian crossing and automated gates at Berwick station pedestrian were relocated 30 metres in the Up direction.

Station limits are from BEW702 to BEW616 (Down line) and BEW721 to BEW605 (Up line).

*Berwick – Pakenham*

Automatics D1490, D1497, D1522, D1529, D1554, D1577, D1600, D1603, D1634, D1641, D1662, D1665, D1686, D1693, D1710, D1719, D1745, D1746, D1774, D1783, & PKM607 were provided.

The Up line pedestrian crossing and automated gates at Beaconsfield were relocated 10 metres in the Up direction. The pedestrian crossing at Officer station was provided with automated gates.

*Pakenham*

Homes PKM702, PKM705, PKM706, PKM707, PKM711, PKM 713, PKM715, PIM724, PKM726, PKM728, PKM731, & PKM733 were provided. Dwarfs PKM708 & PKM729 were provided. Speed proving train stops were provided on the Down line 26 metres and 235 metres on the Down side of Home PKM706.

The points at Pakenham were renumbered. The hand operated derail in A Siding (623) was provided with a U5A detector.

The down side pedestrian boom barriers at McGregor Rd were replaced by automated gates, automated gates were provided at Savage St pedestrian crossing, and the pedestrian boom barriers at both sides of Main Rd were replaced by automated pedestrian gates.

Station limits are from PKM702 to PKM779 (Down line/North line) and PKM781 to PKM607 (South line/Up line).

*Pakenham – Pakenham East*

Homes PKM624, PKM626, PKM655, PKM657, PKM744, PKM746, PKM752, PKM754, PKM755, PKM757, PKM759, PKM761, PKM763, PKM765, PKM767, PKM769, PKM770, PKM771, PKM772, PKM779, PKM780, PKM781 and PKM782 were provided. Dwarfs PKM758, PKM760, & PKM762 were provided.

Points 652, 655, 659, 661, 663, & 665 were provided.

Down Home Departures PKM770 (North Line) and PKM772 (South Line) and Down Homes PKM780 (North Line) and PKM782 (South Line) are worked by Centrol. Up Homes PKM779 (North Line) and PKM781 (South Line) are worked by the Signaller Dandenong.

Slot releases are provided on the Centrol VDU for both the North and South Line. The slot releases permit the Signaller Dandenong to set a Down route from Home PKM772 (North Line) or PKM770 (South Line) to the respective single lines. The slot release must be given and the block light displayed before Centrol can clear Homes 780 (North Line) or PKM782 (South Line).

The Signaller Centrol can clear Up Home Departure BYP26 at Bunyip towards either single line at any time provided the slot release has not been given for that line.

The altered track and signalling arrangements between Pakenham and Nar Nar Goon will be indicated on the Corridor Signalling VDU at Centrol.

The motorised train stabling gates (658, 660, and 662) were not commissioned at Pakenham East. Circuit modifications were undertaken so that these gates are indicated in the open position on the Dandenong panel.

The theatre route indicators on PKM752 and PKM754 were not installed or commissioned.

Derail 659 on the Arrival Road at the Pakenham East depot was not installed. To provide roll-out protection a section of rail was removed from the Arrival Road on the Down side of the derail position. Baulks were provided on each side of the removed rail. Circuit modifications were carried out to false feed the normal detection of the 'derail' to allow for normal operation of the main line signalling. Routes to and from the Arrival Road will not be available.

Diagrams 71/18 (Narre Warren – Cardinia Road), 73/18 (Pakenham – Pakenham East), and 98/18 (Nar Nar Goon – Drouin) replaced 63/18 (Narre Warren – Pakenham) & 106/11 (Nar Nar Goon – Drouin).

20.12.2018

**Caulfield – Pakenham & Cranbourne****(SWP 9/18, WN 50)**

On Thursday, 20.12., the following Caulfield Group Operating Procedures Nos 13, 14, 15, 16, 16A, 17, 18, & 19 were cancelled. New Caulfield Group Operating Procedures were issued: 13 (Caulfield to Pakenham and Cranbourne Line Rail Corridor); 15 (Oakleigh); 16 (Westall); 17 (Dandenong); 18 (Dandenong – Cranbourne (Single Line Sections)); 19 (Berwick); and 20 (Pakenham).



- 21.12.2018 Pakenham – Pakenham East (SW 487/18, WN 52)**  
 On Friday, 21.12., a neutral section in the overhead was created between Structures 1909 (59.582 km) and 1944 (60.820 km). The overhead beyond Structure 1944 to the end of the overhead at 61.832 km was not energised. To allow EMU shunting to take place safely at the Down end of Pakenham the train stops at Down Home PKM624 and PKM626 will remain raised for all movements.
- (25.12.2018) Book of Rules – Section 20 Double Line Block (SW 475/18, WN 52)**  
 Rule 23 (Failure of Instruments or Bells) clauses a), b), and c) have been amended. Clauses d) and e) continue to apply.
- (a) Failure of Instruments: Driver to be Advised  
 If any failure of the instruments or bells occurs so that bell signals cannot be sent or received, no train is allowed to enter the section until the Driver has been verbally advised of the failure, the next attended signal box in advance, and the time the previous train arrived complete at that signal box. The Driver must acknowledge receipt of the information prior to departing.
- (b) Line Clear  
 The Signaller at A must request Line Clear by reading the following message to the Signaller at B: 'To the Signaller at [location] Is Line Clear for Train No [xx] to proceed to [location]'. The Signaller at B must obtain the approval of the Train Controller for the train to approach. The time the last train cleared the section must be confirmed with the Train Controller. The Signaller at B can then grant Line Clear by reading the following message to the Signaller at A: 'To the Signaller at [Location] The Line is Clear for Train No [xx] to approach [Location]. The last train through the section was Train No [yy] which arrived complete at this location at [time].  
 The Signaller at A must then obtain permission from the Train Controller for the train to depart. The time the last train cleared the section must be confirmed with the Train Controller. When the train departs, the Signaller at A must read the following message to the Signaller at B: 'To the Signaller at [Location]. Train No [xx] departed here at [time].' The Signaller (at A?) must also advise the Train Controller of the time of departure.  
 When the train arrives at B, the Signaller there must contact the Signaller at A and read the following message: 'To the Signaller at [Location]. Train No.[xx] arrived here complete at [time].' The Signaller (at B?) must advise the Train Controller of the time of arrival.
- (c) Advice to Train Controller  
 The Signallers must advise the Train Controller: when a request for 'Line Clear' is received, prior to departure of a train into the section ahead, on departure of the train, and on arrival of the train complete.
- (25.12.2018) Broadford (SW 472/18, WN 52)**  
 Effective forthwith, Broadford is not to be switched in as a Double Line Block Post.
- (25.12.2018) Pakenham – Traralgon (SW 478/18, WN 52)**  
 Operating Procedures 125 (Pakenham – Traralgon, Defective Signals) and 126 (Pakenham – Bunyip – Warragul) were reissued due to the changes to the signalling at Pakenham. Circulars SW 36/08 (Procedure 125) and 183/06 (Procedure 126) were cancelled.

**End£**



(Above) Looking east from Racecourse Rd, Pakenham, along the bi-directionally signalled North and South Lines towards the new stabling sidings at Pakenham East. One hundred years ago, one of the concerns of the VR signal engineers with electrification was the visibility of their signals through new overhead portals. The problem has not changed over one hundred years as this photo shows. It is somewhat ironic that this is the second time this section of track has been electrified. (Below) The view from Main St towards the station. One piece of signalling infrastructure still in service from the 1950s duplication and electrification is this signal bridge which carries the Up Home controlling movements out of Nos 3, 4, and 5 Roads. All of the infrastructure in these views of Pakenham will be removed within a few years when the promised grade separation is provided. Both photos David Langley.

