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MINUTES OF MEETING HELD FRIDAY 21 MAY 2021, AT THE SURREY HILLS NEIGHBOURHOOD CENTRE, 1 BEDFORD AVENUE, SURREY HILLS, VICTORIA.

The SRSV meeting scheduled for Friday 21 May 2021 was held on site and was broadcast as an online meeting on the internet using the 'ZOOM' application.

Present: – (On site). Brett Cleak, Glenn Cumming, Graeme Dunn, Chris Gordon, Judy Gordon, Andrew Gostling, Bill Johnston, David Jones, Keith Lambert, David Langberg, David Langley, Neil Lewis, Andrew McLean, Roo Richards, Laurie Savage, James Sinclair, Rod Smith and Rob Weiss. (18)

(Online). Ken Ashman, Phil Barker, Robert Bremner, Graeme Cleak, Michael Formaini, Phillip Miller, Eddie Oliver, Andrew Pardy, Peter Silva, Bob Taaffe and Andrew Wheatland. (11)

Apologies: – Brian Coleman, Steve Malpass, Michael Menzies and Adrian Ponton.

Visitors: – Floyd Bromley, Michael Foley, Jim Gordon, Hugh Maguire and Chris Sullivan.

The President, Mr. David Langley, took the chair and opened the meeting at 20:15 hours.

Minutes of the May 2021 Meeting: – Accepted as published. Bill Johnston / Keith Lambert. Carried.

Business Arising: – Nil.

Correspondence: – The Annual Return for 2020 was lodged with Consumer Affairs Victoria. Rod Smith / Laurie Savage. Carried.

Reports: – Glenn Cumming reported that SRSV membership renewal forms for 2021 had been sent and asked for payments to be made promptly.

General Business: – Keith Lambert provided details about the various level crossing removal projects in the Metropolitan District. A summary of the discussion follows: –

- All points at Bell have been removed.
- A track machine siding will be provided at Victoria Park to replace the track machine siding that was at Bell.
- An "automatic" turnback facility has been provided at Reservoir.
- The disaster recovery facility for Camberwell Signal Box, located at Glenferrie, was used recently. This facility was provided in 2018.
- The Rushall curves have been rerailed.
- The Flinders Street viaducts metalwork is currently being cleaned and painted.

(Front cover). Probably the last 'new' lattice mast to be installed on the non-preserved railways was Post 19 at Frankston. Installed in 1988 when the Down end of the yard was extensively rearranged to make No 3 Road (the Down line) the straight, it replaced a three doll wooden mast. The mast is a standard VR lattice bracket post which has been galvanised. This photo was taken in January 2006. The post is still in use, but the mechanical home signals were replaced by two position light signals in March 2011 in conjunction with the extension of Platform 2 by 17 metres to allow the Crib Point railmotor and an EMU to simultaneously occupy the platform. The mechanical disc signal was replaced by a light dwarf in June 2018 when the mechanical operation of the points at the Down end of Frankston was replaced by electro-hydraulic point machines. Photo Ray Layton

Keith Lambert noted that a fixed signal with TPWS (Track Protection and Warning System) had been provided at the buffer stop at Wendouree. Chris Gordon noted that similar equipment had been provided at the turnback siding at Wyndham Vale.

Phillip Miller asked who provided the equipment recently installed at Berwick. The answer provided was Siemens.

Glenn Cumming reported on a recent announcement that the Wabtec company had been awarded a contract by V/Line for the supply of an Electronic Train Order System (ETOS) for the Echuca and Swan Hill Lines. No other details are known but Glenn wondered why it was necessary to develop yet another electronic safeworking system?

It was revealed that power signalling between will NOT be provided between Bendigo – Epsom.

This was followed by a discussion comparing the planned signalling system on the Warrnambool Line and the ETOS for the Swan Hill Line.

Rod Smith asked for news about the testing of the Communications Based Train Control (CBTC) system.

Brett Cleak advised that testing of the CBTC system is continuing using Xtrapolis trains. Testing of the CBTC system with the new High Capacity Metro Trains will be done next. Testing of the Automatic Train Operation (ATO) system for stopping at the platform doors is yet to be done.

James Sinclair asked how many High Capacity Metro Trains were in service. Floyd Bromley reported that four (4) HCMTs are in service.

Rod Smith asked for details of the design of the new station at East Pakenham. Platforms will be provided for Metro trains only. Interchange between Metro and V/Line trains will be occur at Pakenham.

Brett Cleak reported on recent works at Wallan including the removal of the semaphore Down Distant Signal.

Bob Taaffe advised that Gosford Signal Box in New South Wales will be abolished over the long weekend in June 2021. Gosford will then be worked by remote control from the Rail Operations Centre at Green Square in Sydney.

Phillip Miller reported on a recent announcement about the creation of Great British Railways to replace Network Rail.

Ken Ashman provided some news from New Zealand as follows: –

- New Zealand Government has announced railway investment of $1.3 Billion NZD
- Hillside Workshops at Dunedin will reopen
- Resignalling between Trentham – Upper Hutt using Siemens Westrace Mark 2 equipment has been delayed
- The City Rail Link project between Auckland Britomart – Mount Eden was described
- The tunnel floors on the North Auckland Line will be lowered to allow 9′ 6″ high cube containers to pass through
- Planning for a new branch line to Marsden Point
- A proposal for a new port at Otiria
- Rerailing in the Auckland area

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

Rod presented the 30th annual screening of slides from the collection of the late Stephen McLean.

This year's presentation took us into 1982 when the "New Deal" for country passenger rail services in Victoria was beginning to be delivered.

The slides showed a variety of scenes as Stephen recorded the changing landscape in rail travel in Victoria.

An amazing variety of passenger train consists were seen at various locations around Victoria including the first of the new tangerine "N" sets. Also seen were views of the short-lived Adelaide Daylight and some views around the Adelaide metropolitan area.

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

Meeting closed at 22:35 hours.

The next meeting will be on Friday 16 July, 2021 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 15/21 to WN 22/21, 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.

11.04.2021 **Toolamba** **(SW 52/21, WN 15)**

Between Sunday,11.4., and Friday, 16.4., the Down end siding points were abolished. Baulks were provided at the Down end of the siding giving 258 metres standing room.

The duplex lock (Master key/Annett key exchange apparatus), B pattern Annett lock, small point lever and rodded derail/crowder were abolished.

Diagram 84/20 (Nagambie – Toolamba) replaced 80/14.

(13.04.2021) **Kerang** **(SW 55/21, WN 15)**

Additional notice boards were provided: 'SIGCON 1' facing Up trains at the Up end of the platform; 'SIGCON 2' facing Down trains at the Down end of the platform; and 'Maximum speed to Wellington St 50 kph' facing Up trains at the Up end of the platform.

Diagram 14/21 (Pyramid – Kerang) replaced 8/20.

15.04.2021 **Katunga** **(TON 177/21, WN 16)**

On Thursday, 15.4., the siding was booked back into service following repairs to the turnout within the yard.

18.04.2021 **CBTC** **(SW 217/21, WN 15)**

Between Sunday, 18.4, and Thursday, 22.4., the Rail System Alliance conducted Stage 1 – System Acceptance Testing (one and two train testing) for the CBTC system between Epping and South Morang.

18.04.2021 **Eltham** **(SW 353/21 & SW 354/21, WN 14)**

On Monday, 19.4., the boom barrier mechanisms at Diamond St & Railway Rd were replaced by Western Cullen Hayes mechanisms and the flashing lights were upgraded to LEDs.

(20.04.2021) **Wallan** **(SW 56/21, WN 16)**

Operating Procedure 101 (Wallan) was reissued to reflect the updated signalling alterations (SW 43/21). SW 100/20 was cancelled.

24.04.2021 **Toorak – Armadale** **(SW 363/21, WN 16)**

Between Friday, 23.4., and Saturday, 24.4., Up Automatic F220 (Caulfield Through line) was replaced by a new LED post located 4 metres in the Down direction.

Amend Diagram 89/20 (South Yarra – Malvern).

(27.04.2021) **Moriac Block Point** **(TON 182/21, WN 17)**

The Network Service Plan, Train Operating Data, has been amended to shown the distance of Moriac Block Point (98.000 km) in Table 6 of the Werribee to Warrnambool section.

(27.04.2021) **Toolamba** **(SW 60/21, WN 17)**

Operating Procedure 109 (Toolamba) was reissued to reflect the changes in SW 52/21. SW 200/13 was cancelled.

27.04.2021 **Parwan Loop** **(SW 59/21, WN 17)**

Between Tuesday, 27.4., and Friday, 30.4., the time clearing conditions for signals A427, PWN706, PWN726 & A486 were removed. The existing timing boards for Up and Down trains approaching Parwan Loop were abolished. The TPWS equipment at PWN706 & PWN726 was updated.

Diagrams 20/21 (Melton – Parwan Loop) & 18/21 (Bacchus Marsh – Rowsley) replaced 102/19 & 2/21 respectively.

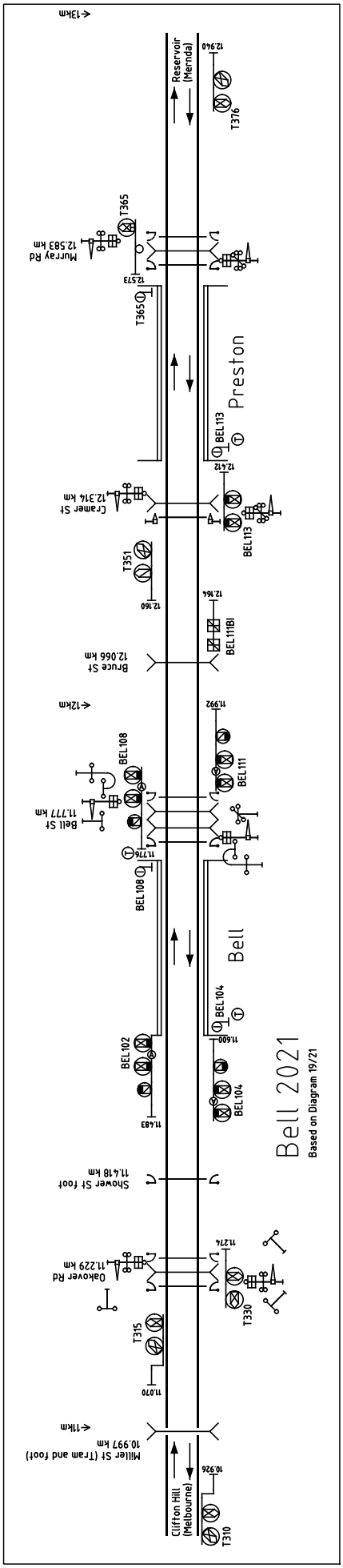
27.04.2021 **Bank Box Loop** **(SW 59/21, WN 17)**

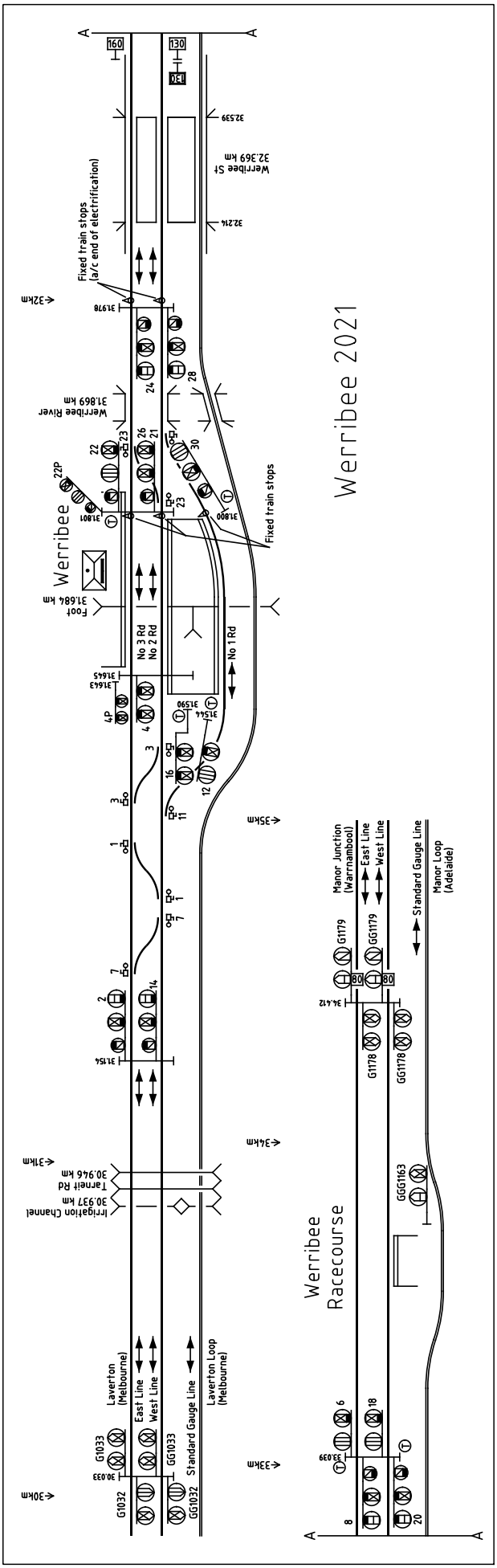
Between Tuesday, 27.4., and Friday, 30.4., the time clearing conditions for signals A637, BBL706, BBL726, &A686 were removed. The existing timing boards for Up and Down trains approaching Bank Box Loop were abolished.

Diagram 22/21 (Bank Box – Ingliston) replaced 106/19.

27.04.2021 **Hallam** **(SW 403/21, WN 17)**

Between Tuesday, 27.4., and Wednesday, 5.5., the station will be closed to allow for construction work for the removal of the level crossing. The Signaller, Dandenong, must select 'Express Mode' for all Down trains.


Bell 2021
Based on Diagram 19/21
Bell
Preston
Reservoir (Mernda)
Clifton Hill (Melbourne)
Miller St (Tram and foot)
10.997 km
Shower St foot
11.418 km
Oakover Rd
11.229 km
Bell St
11.777 km
Bruce St
12.066 km
Cramer St
12.314 km
Murray Rd
12.583 km
BEL102
BEL104
BEL108
BEL111
BEL111BI
BEL113
T310
T315
T330
T351
T365
T376


Werribee 2021
Werribee
Racecourse
Fixed train stops
(a/c end of electrification)
Fixed train stops
Werribee River
31.869 km
Werribee St
32.369 km
Foot
31.684 km
No 3 Rd
No 2 Rd
No 1 Rd
Irrigation Channel
30.937 km
Tarneit Rd
30.946 km
Laverton
(Melbourne)
East Line
West Line
Standard Gauge Line
Laverton Loop
(Melbourne)
Manor Junction
(Warrnambool)
East Line
West Line
Standard Gauge Line
Manor Loop
(Adelaide)
G1032
G1033
GG1032
GG1033
G1178
GG1178
G1179
GG1179
GGG1163

29.04.2021 **Aircraft** **(SW 365/21, WN 17)**

Between Thursday, 29.4., and Friday, 7.5., the pedestrian crossing at the former Aviation Rd crossing (22.060 km) was closed and a temporary pedestrian footbridge was provided to access the platform. The Newport Westcad was updated.

Amend Diagram 41/20 (Altona Junction – Laverton).

03.05.2021 **Southern Cross – Jolimont & Flinders St, City Circle Underground Loop** **(SW 383/21, WN 17)**

Between Saturday, 1.5., and Monday 3.5., the following signals were upgraded to U2L type LED heads: PAR066, PAR091, PAR194, PAR192, PAR192P, PAR056, PAR052, PAR046, MCE044, MCE190, MCE040, MCE032, FGS024, FGS188, FGS188P, FGS018, FGS010, FGS006, & FGS004.

(04.05.2021) **Altona Junction – Laverton** **(SW 408/21, WN 18)**

Diagram 39/21 (Altona Junction – Laverton) replaced 41/20 account removal of the pedestrian crossing at Aircraft.

05.05.2021 **Bell** **(SW 402/21, SWP 3/21, WN 17 & 19)**

Between Wednesday, 5.5., and Wednesday, 12.5., the Works Siding, the local control panel, and all points were abolished.

Crossovers 001, 002, and 011 were abolished. Down Home BEL110 and Down Dwarf BEL104 were abolished. Up Automatic BEL113 was redressed as a Home signal, but is not provided with a low speed aspect or illuminated letter 'A'. A Banner Indicator BEL111BI was provided at 12.164 km.

The pedestrian crossing on the Down side of Cramer St was abolished.

Circuit alterations were made to correct a fault when Bell is switched in from the SigView at Epping.

The SigView at Epping signal box and the TCMS were updated.

Diagram 19/21 (Northcote to Reservoir) replaced 37/19.

Clifton Hill Group Operating Procedure clauses 1.1b (Positive detection unavailable of points (sic)), 1.1d (Bell – operating restriction), & 1.1e (Failure of signals at Bell during the operation of the local signal control panel) were cancelled. Procedure 1.1f was amended to show the station limits on the Up line extending between Controlled Home BEL113 and Automatic T330. SW 102/14 was cancelled.

06.05.2021 **Ballarat East** **(SW 62/21, WN 17)**

On Thursday, 6.5., Banner Indicator BAT34BI was provided 53 metres on the Down side of Dwarf BAT34 on the Engine Track.

Diagram 6/21 (Ballarat) replaced 48/20.

07.05.2021 **Werribee** **(SW 405/21, WN 18)**

On Friday, 7.5., the East and West Lines between Werribee and Manor Junction were restored to service.

Down Home Departures 6 & 18 were commissioned. Home 18 was altered to only display Stop, Normal Speed Warning, and Clear Normal Speed. Electric train terminating boards were provided at Homes 24 & 28 and fixed train stops on both lines at 31.966 km.

A road/rail vehicle access pad was provided at 30.990 km.

Train detection through Werribee between 31.133 km (two metres on the Up side of Homes 2 & 14) and 33.020 km (Homes 8 & 20) is by axle counters. The axle counters have supervisory reset, point supervisory reset, next train reset, and occupation reset.

Diagrams 35/21 (Aircraft – Werribee) & 37/21 (Werribee Racecourse to Little River) replaced 91/20 & 87/20 respectively.

10.05.2021 **Ballarat** **(SW 77/21, WN 19)**

Commencing Monday, 10.5., a Wayside Monitoring Shed will be constructed on the Engine Track on the Down side of Humffray Street. The shed will be 21 metres long and will be located 10 metres on the Up side of Banner Indicator BAT34BI and 22 metres on the Down side of Dwarf BAT34.

Amend Diagram 6/21 (Ballarat)

10.05.2021 **Bendigo** **(TON 213/21 & 214/21, WN 19)**

Commencing Monday, 10.5., a Bio-Wash facility will be constructed on Roads 3, 4, & 5 of the Bendigo Freight Yard.

(11.05.2021) **Werribee** **(SW 414/21, SWP 4/21 WN 19)**

Commencing forthwith the Signaller must either ensure that Homes 6 & 22 are at proceed before clearing Home 2, or ensure that the approaching train has passed Home 2 before clearing Homes 6 & 22. This is due to an issue when the signals step up to an improved aspect.

The Northern Group Operating Procedure 7 was amended. Clause a (Werribee – Failure of signals) was amended, clause c (Cherry St – Boom barrier 5P key switch) was replaced with a new clause c (Defined Station Limits). Operating Procedure 8 (Werribee SPAD mitigation interim instruction – operation of Down Home 22) was deleted.

The station limits are defined to be between Homes 2 & 8 on the East Line and between Homes 14 & 20 on the West Line.

12.05.2021 **Reservoir** **(SW 420/21, SWP 3/1, WN 19)**

On Wednesday, 12.5., an automatic turnback function was provided. When the Reservoir area is set to 'Automatic Mode', the interlocking will automatically set the route for Down arriving trains to return in the Up direction. The SigView system at Epping signal box was updated.

The Clifton Hill Group Operating Procedure was reissued. Clause 1.2 (Automatic Turn Back Function) was added.

17.05.2021 **Wycheproof** **(SW 90/21, WN 21)**

On Monday, 17.5., the turntable siding was restored to use. A hand operated derail has been provided in the Turntable siding. TON 89/21 is cancelled. Amend Diagram 8/20 (Wycheproof – Warne).

17.05.2021 **Belgrave** **(SW 412/21, WN 18)**

On Monday, 17.5., Home 56 was renewed in situ.

(18.05.2021) **Ballarat** **(SW 81/21, WN 20)**

Diagram 61/21 (Ballarat) replaced 6/21 account construction of the Wayside Monitoring Shed.

19.05.2021 **Echuca** **(SW 83/21, WN 20)**

On Wednesday, 19.5., the Up end of No 1 Road within Sidings A, immediately adjacent to the Murray Valley Hwy was shortened by 10 metres. Amend Diagram 68/20 (Echuca).

(25.05.2021) **Warrenheip Loop** **(SW 92/21, WN 21)**

The Up Loop track has been booked out of service and all trains will run via the Down Loop. The main line points have been secured for the Down Loop and the point banner at each end has been placed out of service.

Warrenheip is now an Intermediate Train Order Station and is only available for follow-on movements. Train Orders to Warrenheip Loop will only apply to the 'F' boards at the end of the crossing loop for that direction of travel.

(25.05.2021) **Bendigo** **(SW 94/21, WN 21)**

The status of the roads in the Freight Yard is as follows: No 1 Road – booked out (TON 445/15); No 2 Road – available for use; No 3 & 4 Roads – baulks installed on the Down side of Myrtle St with 450 metres at the Up end available for use. The Down end is booked out of use; No 5 Road – booked out of use (TON 445/15) with a baulk provided on the Down side of Myrtle St; No 6 Road – booked out of use (TON 445/15). TON 213/21 and 214/21 are cancelled.

26.05.2021 **Bairnsdale** **(SW 85/21, WN 20)**

On Wednesday, 26.5., boom barriers will be provided at the existing flashing lights at Ligar St (274.172 km). The existing axle counter equipment, healthy state indicators, yellow whistle boards, and remote monitoring equipment was retained.

Post 3, on the Down side of Ligar St was renewed in situ with a 5.5 metres tall mast. The existing signal heads will be retained.

The out of service crossover between Nos 1 and 2 Roads on the Down side of Post 4 was removed.

Diagram 66/20 (Bairnsdale) replaced 28/18.

31.05.2021 **Southern Cross – Jolimont Junction & Flinders St – City Circle Underground Loop** **(SW 440/21, WN 20)**

Between Friday, 28.5., and Monday, 31.5., the following signals were fitted with U2L LEDs: 003, 005, 011, 017, 019, 025, 033, 039, 041, 049, 053, 122, 161, 163, 189, 191, 193, & 197.

31.05.2021 **Waurn Ponds** **(SW 98/21, WN 22)**

On Monday, 31.5., the Cement Siding loop track was formally abolished and the track and hand operated points in it will be removed. The Up and Down end Master key locked points were secured normal.

Amend Diagram 4/21 (Waurn Ponds).

07.06.2021 **Armadale – Malvern** **(SW 426/21, WN 20)**

On Monday, 7.6., Down Automatic D249 (Caulfield Local Lines) was renewed with a new post situated 2 metres in the Down direction. Amend Diagram 89/20 (South Yarra – Malvern).

05.06.2021 **Marshall – Waurncoort** **(SW 101/21, WN 22)**

Commencing Saturday, 5.6., signal posts (without heads) will be installed at the following locations: (Marshall - 79.600 km); 81.657 km; 82.957 km; 83.884 km; 84.516 km; (Waurn Ponds – 84.613 km); 84.806 km; 85.604 km; 86.931 km; 88.365 km; 88.492 km; 89.501 km; 90.667 km; 91.960 km; 112.104 km; (Winchelsea – 113.740 km); 115.996 km; 135.910 km; (Waurncoort – 137.884 km); 139.941 km.

End£

FRANKSTON, 2006

Ray Layton has sent in a number of pictures he took of Frankston in January 2006.

In the photo on the left we see BL29 and BL30 on the Down Long Island steel train about to start climb Langwarrin bank. Note that the Down line leads directly to No 2 Road, which is the straight line at the Down end which allows the steely to get a good run at the bank. Frankston has two massively tall signal bridges, one at each end of the platform, which were provided at electrification. The mechanical signals on this bridge were replaced by two position light signals in November 2005. In the image below, the Stony Point pass – a H set hauled by an A class diesel – has been signalled from the platform to the Stony Crossing line.

At the Up end of Frankston are three signal posts that still retain mechanical signals today – these are now the last mechanical signals on the Metro network. These three posts control shunting movements at the Up end of the yard. Post 8 (right) is a galvanised batten post that was renewed in 1988 and controls movements from X to the Up line. Post 5 (in the background in the photo on the left, and in the foreground in the photo below) has four discs and controls set back movements from the Up line. Post 5B, in the background below, controls movements from Siding B, a stabling siding, to the platform roads.

KERANG

Kerang was one of the last locations on the non-tourist lines in Victoria to be signalled by VR plunger locking. To mark its resignalling, I thought it would be appropriate to look at its history. In some ways, its signalling story is typical of Victorian Railways country stations. In others it is unusual, being the junction for two branch lines, including one that, for most of its life, was a private railway.

The railway network around Kerang had a complicated and interesting history due to politics. The line between Eaglehawk and Kerang was authorised in the 1880 Railway Construction Act and was opened on 25 October 1884 when the line from Pyramid (Hill) to Kerang was opened for traffic. The formal opening had occurred the previous day by the Commissioner of Trades and Customs, Mr Langridge, as the Railway Minister, Duncan Gillies, was in ill-health. Sadly, this was not believed by the audience who believed that Gillies preferred not to come due to his lack of support for the extension of the railway to Swan Hill. The usual feastifying was indulged in.

The extension to Swan Hill had a complicated gestation. It was initially included in Bent's 1882 Construction Bill, but was deleted in committee due to the political pressure of Echuca and the riverboat trade, neither of which wanted a competing port 100 river miles downstream. It should be noted that Bent, and the government, was in favour of the line precisely to replace Echuca as a means of regaining the trade that had been lost to the New South Wales line to Hay. The Swan Hill line thus achieved the dubious distinction of NOT being included in Bent's Octopus Act despite being supported by the government. However, this had little practical effect as the whole bill was lost when Parliament was prorogued. The MLA representing Echuca was Duncan Gillies, and, when the next Railway Construction Bill was introduced in 1884, Gillies was the Minister of Railways. Unsurprisingly, the Kerang - Swan Hill line was not included in the bill when it was introduced into Parliament. During debate on the bill the government added almost all of the lines proposed in Bent's 1882 bill that had been omitted from the 1884 one, but not the Kerang - Swan Hill line. After much further debate it was eventually included in the bill on a division and duly authorised in mid December. Having an Act did not mean there was any priority for construction of the line, especially after Gillies became Premier in 1886. The contract for construction of the line was eventually gazetted on 25 May 1888 and was let to David Munro & Co Ltd for £99,769/9/6.

In the meantime, the Koondrook Tramway had come into being. In December 1885 Parliament had passed the Railway Loan Act which allocated £200,000 for loans to local councils for the construction of tramways, apparently primarily aimed at Gippsland Shires. In October 1886 the Swan Hill Shire, which included both Kerang and Koondrook, applied for £21,000 to build a tramway between those two towns. The main freight expected was livestock (from NSW) and sawn timber, and so a broad gauge tramway was specified to avoid transhipment at Kerang. The approval was long delayed – it is hard to avoid the sense that the Gillies government would have preferred to spend the money elsewhere. Notional approval by the government to the loan was not given until January 1888, and the necessary Order-in-Council was not approved until May 1888. The construction contract was let in June 1888 to David Munro & Co, who had just won the contract for the Kerang – Swan Hill line. This allowed the contractors to give a very keen price, especially as they wished to use the tramway to transport bridge timbers, piles, and sleepers from Koondrook for construction of the Kerang to Swan Hill line. The 14 mile Koondrook tramway was officially opened on 19 July 1889. Duncan Gillies was originally intended to open the Tramway, but the Commissioner of Public Works, D.M. Davies replaced him at the last minute.

The extension from Kerang to Swan Hill was finally officially opened on 30 May 1890.

The final line at Kerang was the Stony Crossing line; a line which would rank in the top five white elephant VR lines. There is a long backstory to the Border Railways, but the basic problem was the difficulty of the NSW railways to economically service the areas close to the Victorian border without giving an economic advantage to Victoria. The presence of the Deniliquin Railway was a particular challenge.

In the April 1922 NSW state election, however, the Nationalist party, in opposition, locally ran on a platform of allowing Victoria to build lines in the border areas. When the Nationalist party won the election, the Victorian government was quick to contact the new government to discuss the idea. This resulted in the Border Railway Act of 1922.

A key part of this agreement was the area to the west of the Deniliquin railway. The NSW government's aim was to satisfy its election promise by getting Victoria to build a railway to serve the two towns of Moulamein and Balranald. Everyone agreed that Moulamein was best served by a line from or near Moama. The NSW government wanted to continue this line to Balranald. This was the cheapest solution, and would connect the two towns together and connect both to Echuca.

Victoria's aim, however, was to open land for settlement – land that would be economically tied to Victorian trading interests. The problem with serving Balranald from Moulamein was that it would run through poorer quality land, and would leave better land closer to the Murray unserved by railways. The alternative options had been looked at in a Royal Commission in 1917. At that time, the Victorian government wished to serve Balranald from either Cohuna, Kerang, Swan Hill, or Piangil. All these options would require an expensive bridge across the Murray. The cheapest option was to run a line from Piangil, but this also meant that relatively little new land would be opened up for what was still and expensive line. The Railway Construction Branch and the VR Traffic

Branch had preferred to extend the Cohuna line northwest between the Swan Hill and Moulamein lines. This would give a long efficient line to run (the Traffic Branch were still concerned about 'cockspur' lines), and open up the maximum amount of new land. This was officially rejected because the railway would run through Victorian land that was considered good only in parts, however it appears that a bigger problem was that it would permanently destroy any possibility of the Koondrook Tramway making a profit. The Victorian Government was concerned that it would be forced to buy out the Tramway, which it did not wish to do. The Victorian government's preferred solution was the next longest route: starting at Kerang, heading north to Gonn Crossing (Murrabit), then north west to Stony Crossing and finally north to Balranald, and this route was recommended in 1917. However, the NSW government (and probably the locals) prevailed in 1922 and Balranald was served from Moulamein. The line from Kerang was retained to serve the land closer to the Murray, but truncated at Stony Crossing.

These lines were embodied in the Border Railways agreement and ratified by the NSW parliament in their Act. When the matching Victorian Bill was introduced into Parliament, a glorious picture was painted of Victoria building the railways and NSW resuming the land, subdividing it for closer settlement, and providing the necessary services (roads, towns, water supply, etc). Unfortunately, the NSW Premier flatly denied that NSW had agreed to provide any infrastructure or to purchase and subdivide land for closer settlement. Victoria was consequently bound to build the Stony Crossing line, but it would never serve anything other than grazing country. The first section between Kerang and Murrabit was opened on 20 December 1924, and the full line on 16 March 1928. The line was an expensive white elephant, and one that truly could be said not to pay for its axle grease.

The early years

The usual facilities were constructed at Kerang around the time of the opening. A contract was let for the construction of a telegraph line between Pyramid Hill and Kerang to James McCallum for £91/17/6 (published in the Government Gazette on 26 September 1884). Contracts were then let for the erection of the engine shed, etc (P. Jorgenson, £864/19/4) and water supply works and erection of the turntable (P Denholm, £1099/2/8), both contracts gazetted on 17 October 1884. The next week a contract was gazetted for the erection of a goods shed and platform (£1059/19/3, W.G. Priddle). Provision of facilities continued after opening. The erection of sheep and cattle yards (T.E. Smith & Co, £448/4/3) was gazetted on 19 December 1884. A contract was let for the erection of a 5 ton crane (Wallace & Ayers, £98/17/6), which was gazetted 17 April 1885 and provided in August 1885. Further water supply works were contracted for in January 1886 (J Irving & Co, £375/9/2). As was common, the permanent station building itself was not erected for some time; the contract being let to N. Irwin for £1921.18.0 with construction commencing in July 1886 and finishing well before January 1887.

The locals had been highly vocal in their criticism of the delay in completing the Eaglehawk to Kerang line, and the final stage to Kerang was opened in a rush. The intermediate stations were incomplete and remained closed, and a special time table was in force to avoid night time running as the fencing was similarly incomplete. Kerang itself was initially opened for passengers and light goods not requiring shed accommodation or crane power. Further evidence of the rush can be noted in the revelation that, even by May 1885 there were no signals north of Pyramid Hill, nor scotch blocks in the sidings. The signals had been erected by 19 December 1885, but were not brought into use until 8 January 1886. The cattle siding south of Wellington St existed by October 1885 as instructions were issued to have the facing points in the main line done away with and the siding converted into a dead end. This was carried out in December 1885.

The Kerang Flour Mill Siding appears to have been opened around the time of the extension to Swan Hill. The flour mill had been erected in 1880 and was situated on or near the Loddon River levee - for a time it was partly water driven like the better known mill at Bridgewater with whom it shared a common ownership. The mill appears to have been located immediately south of the railway line near the end of the current Mill Street. The dead end siding faced Down trains and was located on the Down side of the line on the Down side of the Murray Street.

Mostly about staff working

By December 1885 the Service Time Table recorded that the staff sections were Pyramid Hill – Kerang. By December 1887 this section had been divided by opening Macorna as a staff station. In the first half of 1890 it was recorded that the Macorna – Kerang section had been further divided and Tragowel had been opened as a staff station. The Tragowel - Kerang staff was a No 4 Staff with black ticket boxes with red lettering. With the opening of the line to Swan Hill, the initial staff section was Kerang – Lake Charm with a No 1 Staff with red boxes with black lettering. On 9 April 1894 Tragowel was closed as a staff station – no doubt the SM was withdrawn as part of the cuts – and the staff section became again Macorna – Kerang with a No 6 Staff (black ticket box with red letters). By 15 December 1896 all trains beyond Kerang had to carry the Staff; no tickets were allowed to be used.

On 9 August 1898 Annett keys were attached to both the Tragowel – Kerang and Kerang – Lake Charm staffs due to the provision of Annett locking of the points at South Kerang and the Kerang Flour Mills siding (respectively). At the end of December 1898 permission was granted for the 'local engine' to push up to six vehicles to the Flour Mill Siding. The euphemistic term 'local engine' is to be noted – this appears to be actually the Koondrook tramway engine. In 1903 it was noted that the Tramway was effectively being paid £15 per year for its engine to shunt the Flour Mill siding. The Shire had originally been charged £50 per year to use Kerang station, but this had been reduced to £35 at some point in consideration of using the tramway engine to take trucks to and from the Kerang Flour Mill siding. It is quite likely

that the 1898 instruction marks the official beginning of this practice.

On 1 July 1899 it was noted that Kerang had the expected two Up Home and one Down Home signal.

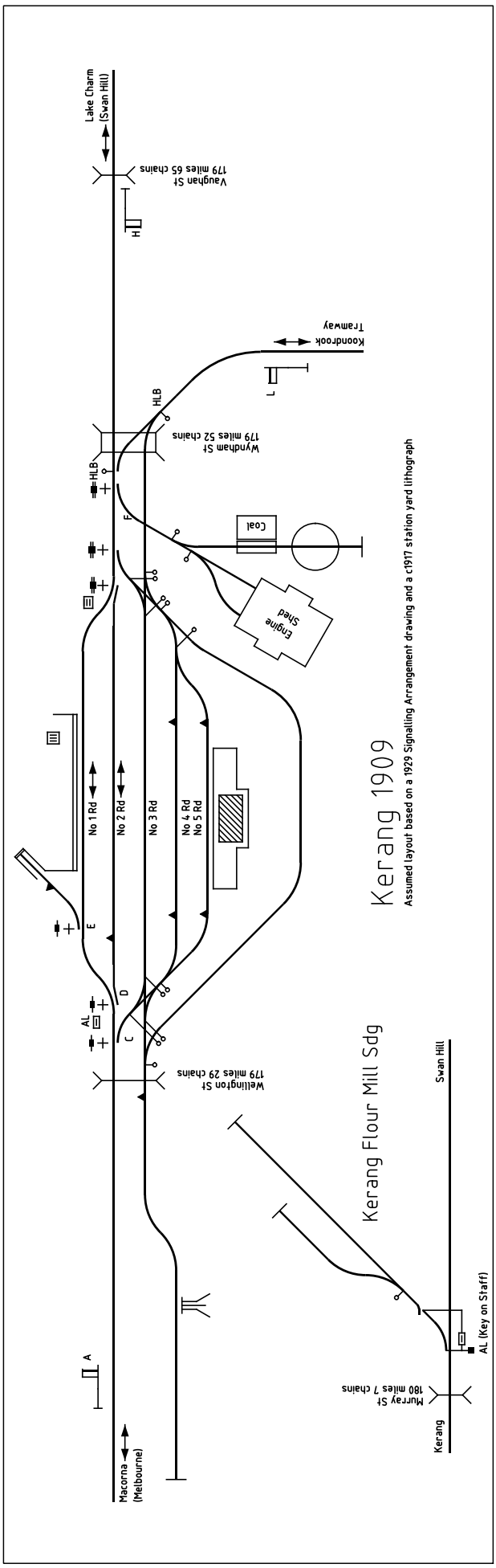
On 5 March 1903 Lake Charm was closed as a staff station; the section becoming Kerang – Lake Boga with a No 1 pattern staff (with a blue ticket box with white lettering). Just over a month later, Lake Boga was also closed and the section became Kerang – Swan Hill (again with a No 1 Pattern staff, with Annett Key, and blue ticket boxes with white lettering). This proved a step too far and Lake Boga was subsequently reopened as a staff station, probably on 28 June 1904 when a man was placed in charge and it was opened as a telegraph station.

The great signalling and safeworking leap forward

On the 18 August 1909 Kerang was plunger locked with no less than six points being so fitted. All of the stations from Sebastian to Swan Hill were equipped with modern point locking on this day, and Lock staffs replaced the old pattern staffs. Actually, the Staff Register hints that it was not quite so straightforward. The Swan Hill line was shown as a regular pattern of No 1 and No 2 pattern Lock Staffs, except that the Macorna – Kerang section pattern was initially blank, the Kerang – Lake Boga was shown as No 2 (with Annett Key), and the Lake Boga – Swan Hill also as No 2! This would appear to have been fixed on 5 December 1910 when the Kerang – Lake Boga section was converted to a No 1 pattern Lock Staff. Someone also filled in the Macorna – Kerang section to be a No 2 pattern Lock Staff, re-establishing the regular pattern of staffs on the line. Now there should have been no need for an Annett key on the new Lake Boga staff as the Kerang Flour Mill siding was supposedly converted to Woods staff locks on 18 August. What I suspect happened was that, for some reason, the old pattern No 2 staff was not replaced on the Kerang – Lake Boga section on 18 August, giving a nominal sequence of three No 2 pattern staffs between Macorna and Swan Hill. Possibly the cause was it was not possible to replace the Annett lock with a staff lock on that date.

During 1911 the Kerang flour mill was relocated to a site in the station yard. Work was begun on the new mill in May. The site of the old mill was sold in December, and the new mill was reported to be almost ready to start in May 1912, with the sidings nearly completed. The new mill commenced to work in mid September 1912. The staff lock was removed from the old Kerang Flour Mill siding on 13 February 1912 indicating its abolition.

On 5 February 1912 large electric staff instruments were tested on the Macorna – Kerang section and the Train Staff & Ticket working was replaced. This may well have been the last section of large electric staff working installed using new instruments. It is a reflection on the train working on the Swan Hill line that the two sections beyond Kerang remained Train Staff & Ticket for nearly a decade. Provision of electric staff appeared to inspire a review of the use of Master Keys on the sections to Swan Hill. Head office did not appear to like providing Master Keys, and it was common at that time for one Master Key to cover several contiguous sections. By 1910 two Master



Keys had been provided to cover the sections of line Mologa – Kerang and Kerang – Swan Hill (each two staff sections). Around February 1912 the Kerang – Swan Hill Master Key was withdrawn – indicating that there was not the traffic to require trains to run on ticket, let alone to put electric staff in. Curiously, the Mologa – Kerang Master Key was not formally withdrawn until December 1912, even though both sections had been worked by electric staff for 10 months. Just to complete the safeworking news for this decade, by circa 1914 there were permanent Temporary Staffs for the sections Kerang -Lake Charm – Lake Boga to allow the Lake Boga section to be split.

On 14 December 1915 a new grain siding was provided at the Up end of the yard just south of Wellington St for the 'Farmers' Grain Shed'. This siding was formally known as 'J.R. Maxwell's Siding'. The points were secured by an Annett lock, and a new Up Home was provided to protect them. The Down Home was relocated 50 yards further out.

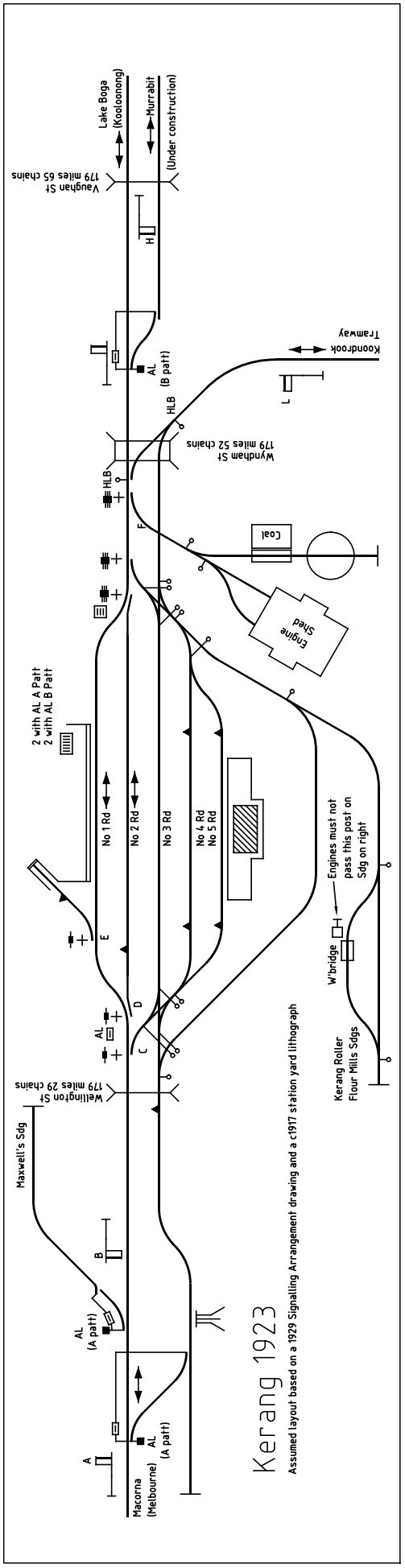
Electric staff was not provided on the Down side of Kerang until 2 December 1921 when large instruments were provided to extend this working to Swan Hill (the sections being Kerang – Lake Boga – Swan Hill). These instruments would have been displaced from other lines due to the introduction of miniature instruments. Composite and Divided Staffs were provided in the Lake Boga instrument at Kerang to allow Lake Charm to be opened as a temporary Train Staff station or a block post. Traffic would have been increasing on the Down side of Kerang – the extension from Swan Hill to Piangil had been opened in 1915; and to Kooloonong in 1920, and the whole area was subject to post war closer settlement schemes.

The Down Home signal was relocated further out again on 22 March 1922. This time it was relocated 104 yards further out to provide room for a new Annett locked crossover to the Cattle Yard siding. This would appear to restore the facility that was removed in 1885.

The Stony Crossing line & alterations at the Down end

The next round of signalling alterations concerned the provision of the new branch line to Murrabit (then known as Gonn Crossing), the first section of the branch to Stony Crossing. The junction to the new branch line was provided on 12 October 1923 while the branch was still under construction. The junction points were secured by a B pattern Annett lock and rodded to a set of catch points in the branch. A Down Home was provided to protect the junction, and Annett locks were provided on both the Up and Down Home signals.

The line to Murrabit was opened on 20 December 1924. In preparation the signalling at the junction was altered – it was simplified. Victorian practice at that time was not to interlock junction points at plunger locked stations in any way. On 18 December 1924 the Annett lock was removed from the junction points, and hence forward it was secured by a hand locking bar and padlock for the main line. The Down Home protecting the junction was removed, and almost certainly the post was relocated to become the new Up Home from the branch. The B pattern Annett lock was removed from the lever working the main line Up Home. Initially it appears that the branch was worked without



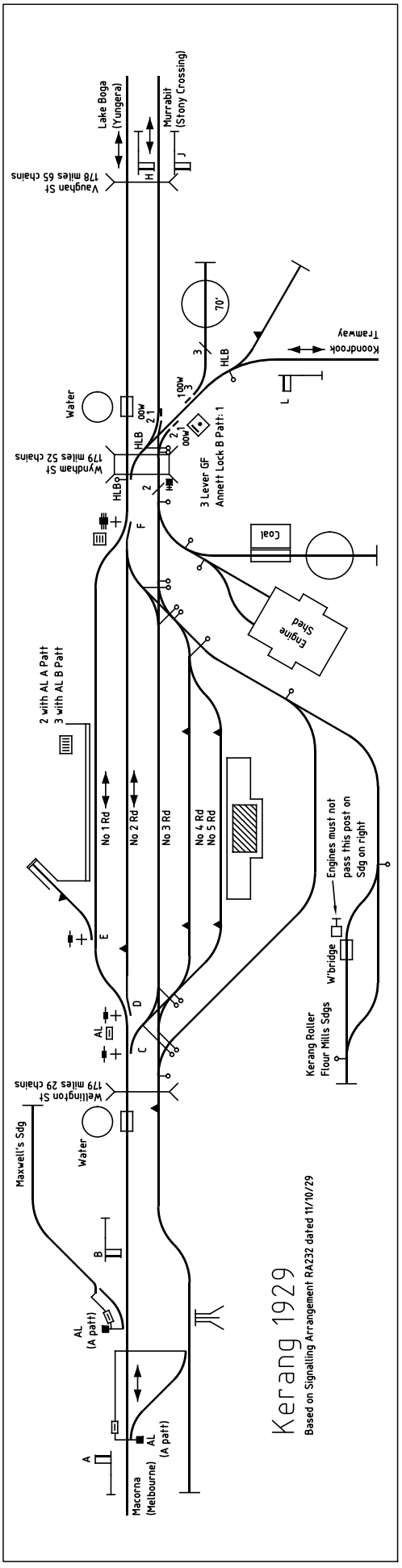
any formal safeworking system at all. Train Staff & Ticket working was belatedly introduced on 4 February 1925 with the single section Kerang – Murrabit (No 1 Pattern lock staff). The Staff Register notes that the staff and boxes were not ordered until the 4 February, so this leaves the possibility that Staff working was actually introduced even later than stated.

As already mentioned, the extension from Murrabit to Stony Crossing was opened on 16 March 1928.

On the other side of Kerang, a composite electric staff was provided in the Macorna instrument at Kerang at the beginning of October 1928 to allow Tragowel to be opened as a block post. When this was necessary, the SM Kerang had to provide a qualified employee to take charge at Tragowel. As was not uncommon, Tragowel was only connected by telephone to its supervising station (Macorna) so all block messages to Kerang had to be relayed by that station. On 2 October 1928 it was recorded that the staff instruments at Kerang were relocated from the booking office to the parcels office.

A new 70 foot turntable was provided at Kerang in March 1929 – it would appear that this was provided to allow the use of N class engines on the Swan Hill line. The turntable siding itself was provided on 26 March off the Koondrook line. To provide sufficient protection, the Up Home signal from the Koondrook line was relocated 104 yards further out. The points to the Turntable Siding were initially secured by a hand locking bar with a scotch block in the siding, but this was only a temporary arrangement. On 4 April the Home signal for the Murrabit line was relocated 40 yards further out, and on the following day the Up Home from the Swan Hill line was similarly relocated. Substantial track re-arrangements occurred at the Down end on 22 August 1929. No 1 Road was extended and the plunger locked point (with Taylor lever) were relocated further out, close to the junction of the Koondrook line. This put the points to No 1 Road beyond those to No 3 Road and the plunger lock on the points to No 3 Road was abolished. It was specially noted that the points in No 2 Road now normally lay for No 3 Road. The junction in the main line to the Stony Crossing line was abolished and the branch was extended to connect with No 3 Road, crossing the Koondrook line by a double compound. The connection from the main line to the engine sidings was abolished, and these sidings now led from No 3 Road. A three lever ground frame was provided at the points leading to the new Turntable to control and partially work the connections leading from the two branch lines. The frame was secured by a B pattern Annett lock with duplicate locks on the Up Home signals. With the ground frame locked up, the points in the two branch lines were secured for train movement to and from the branches. This ensured that no shunting movements were underway at the Down end of the yard when trains were arriving or departing from the branches. I would suspect that the Stony Crossing line was being used as a head shunt for the yard.

At the end of September 1931 the Wyndham St level crossing (179 miles 52 chains) was closed and the hand gates were removed. The footbridge at the Down end of



the yard was provided as a replacement. This would have further simplified shunting at the north end.

Commencing on 29 June 1932 the service on the Stony Crossing line was altered in the most extraordinary way to save money. The weekly service to Murrabit was run, where possible, by a rail tractor. The tractor was converted from a Fordson tractor (similar to, if not the same one, as the machine now in the Newport railway museum). The tractor was not equipped with Westinghouse brakes and so the train was run entirely on handbrakes. Not surprisingly, it was required that a guards van be the last vehicle, and the guard was instructed to be ready to assist the driver in braking when approaching a station or descending a grade. The crew was required to approach the Home signals at Kerang and Murrabit "well under control" so as to be able to stop at the Home signal, whether the signal be at stop or not. The tractor was expected to pull approximately 100 tons at an average speed of 12 mph; more could be hauled but the speed would be lower. The maximum speed allowed was 15 mph. This service was a Car-Goods, and passengers could travel on it. The once per week Stony Crossing service remained notionally steam hauled. By 1938, however, it only ran 'as required' beyond Murrabit and the timetable noted that it might be possible to run this service using the Fordson tractor – presumably not beyond Murrabit, though. The Fordson service ran until the second world war, at which point it was considered that a more useful occupation could be found for the tractor and its fuel allocation and the service reverted to steam.

At the beginning of October 1934 the timetable was rearranged and Lake Charm was now regularly opened as a staff station on Mondays and Wednesdays to cross No 1 Goods and No 16 Mixed. It was more convenient for the SM at Lake Boga to arrange the opening of Lake Charm and the Divided Staff for the Kerang – Lake Boga section was transferred to Lake Boga to facilitate this. No mention was made of the composite staffs.

J.R. Maxwell's Siding was deleted from the Goods Rates book at the end of August 1937. The siding itself remained, but just it was no longer a private siding. This may reflect changing grain handling practices at Kerang. A private silo had been built at Kerang by 1939 for the flour mill. In that year the GEB was established and construction of bulk handling silos commenced. Silo construction was carried out on those lines that would feed the Geelong terminal (the Mildura line and those to the west) in the late thirties and bulk handling commenced just before the war. The lines east of the Mildura line, including Kerang, were intended to feed the Williamstown terminal and construction did not start on silos in that group until early in the war. It is not clear when the Kerang GEB silos were commissioned, but the silos are steel bins that suggests the fifties. The new bulk handling silos were erected behind the goods shed on the lead to the flour mill.

Services were suspended on the Stony Crossing line beyond Murrabit sometime in 1943. As already noted, train only ran 'as required' by 1938, and it is likely that the service just petered out. The exact date of the last train seems to be unknown, as is the date that the services were formally suspended. I think it was Jack McLean that told me a story about his contemporary railway enthusiast Don Potts. Don, who lived in Kerang, decided to nail this date down and posed the question in a letter to Head Office. No-one at Head Office knew either, so the SM at Kerang was asked to see if the locals knew. Don was consequently summoned to the station to answer his own letter. An amusing fact is that loads for the Stony Crossing line were shown in the WTT as late as the 1959 edition, by which time they had been amended to show that a T class could haul 1600 tons to Stony Crossing and return.

On 18 April 1944 the junctions at the Down end were rearranged again. This time the former plunger locked connection between No 2 Road and the yard was removed. It was replaced by a crossover between the main line and the Stony Point line 211 yards further out. The new crossover was worked by WS levers and secured normal by plungers worked by a lever in the ground frame near the turntable points (which was replaced by a four lever ground frame). A minor alteration that occurred at this time was that the right hand track in the engine shed was now directly connected with No 3 Road.

A "Hawke" weighbridge was installed in the Flour Mill Siding on 10 April 1945. In March 1946 the turntable disc was abolished.

Sidings on the Tramway

There were a number of sidings in Kerang on the Tramway. Unfortunately, early information about them is extremely sketchy.

The first siding on the Tramway appears to have served the depot of the Shell Oil Coy on Willis St at 180 miles, 5 chains, 10 links. This siding faced Up trains and was in use by 1946.

There may have been an earlier siding. This siding faced Down trains and was located inside the Home signal. The siding is shown on the 1929 Signalling Arrangement drawing, and was still shown on recent drawings labelled 'Webb Industries Siding'. Exactly what this siding was is not clear, but it may have served a large, now vacant, block of land to the north of the Tramway on the Down side of Park Road.

In the early post War period, a number of sidings were constructed on the Koondrook line, in the vicinity of the Shell Siding. All these sidings faced in the Up direction, no doubt for convenience in shunting.

A siding for Webb Industries Ltd was constructed at 180 miles, 10 chains, 54 links and was completed on 18 October 1946. Webb Industries were an engineering firm that manufactured windmills and other irrigation material that relocated to Kerang in 1946/7. The new siding could hold 7 vehicles between the scotch block and the baulk.

A new siding was constructed for the Vacuum Oil Ltd at 180 miles 1 chain, 57 links and was completed on 13 March 1947. This held 5 trucks. The third new siding was constructed for the Commonwealth Oil Refining Coy at 180 miles 5 chains 10 links. I do not have a completion date for this siding, but it was constructed around this time. Construction of these oil sidings caused a problem – the Tramway was limited to vehicles with an axle loading not exceeding 12 tons. However, the only oil tank wagons

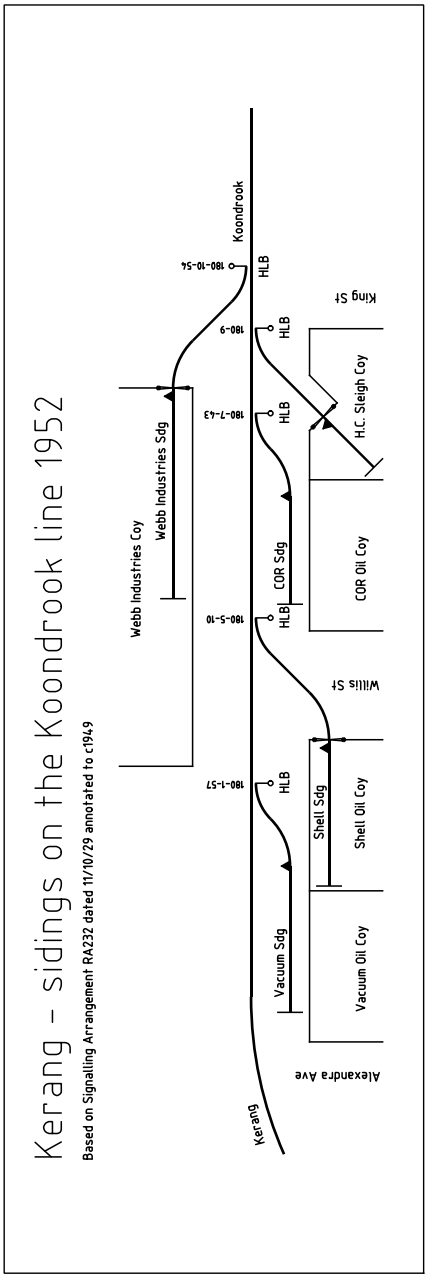
which conformed to this limitation were the four wheeled tanks of roughly 3,000 gallons capacity. By the beginning of September 1947 the Shire had improved the tramway in this section so that it could carry any four wheeled or bogie tank wagon.

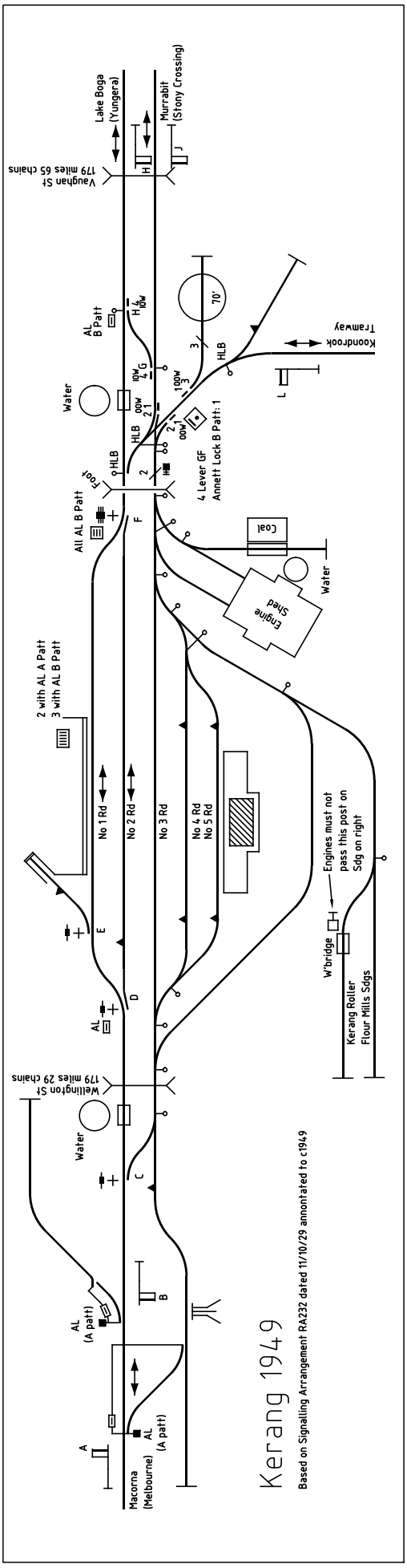
All these sidings were worked by the Tramway engine, and the Department specifically noted that no instructions were necessary to work the sidings. On 3 April 1950 permission was granted for a Victorian Railways locomotive – D3 or lighter – to service the four sidings on the Koondrook line. The speed was not to exceed 10 mph. A handwritten note on the A circular states that this was due to the Shire engine being defective.

None of the sidings on the Koondrook line at Kerang were ever secured by anything other than hand locking bars and padlocks.

Changes at the Up end

On14 December 1949 the Up Departure Home signal was relocated 100 yards further out and on the left hand side





of the line. On 8 February 1950 the plunger locked connection at the Up end to Nos 3, 4, & 5 Roads was abolished together with the double compound at the Up end of No 3 Road. A new plunger locked connection to No 3 Road was provided on the Up side of Wellington Street. The scotch block in the Live Stock siding was relocated to be clear of the new crossover.

Changes on the Tramway

On 1 February 1952 the Koondrook Tramway was taken over by the Victorian Railways. Staff & Ticket working was instituted at 7.52 am on that day with the single section Kerang – Koondrook. It was specially noted that there was no departmental telephone line to Koondrook and permission was granted to exchange the safeworking messages by the PMG telephone, subject to the two signalmen speaking directly with each other.

H.C. Sleigh Coy joined the three other oil companies with a siding off the Koondrook line in 1952. Their siding was at 180 miles 9 chains and was 265 feet in length. A scotch block and gate were provided at the fouling point.

On 3 July 1959 permission was granted for a rail tractor to service the five sidings on the Koondrook line. A train crew of three was required – a driver and two assistants. Some of the instructions appear as if they had been copied from the 1932 instructions for serving Murrabit – including operation by hand brakes only. However, a guard's van was not used and one of the assistants had to ride on the final vehicle (or leading vehicle when being pushed). It is an interesting question as to whether this marks the start of tractor shunting at Kerang, or whether someone in authority realised that instructions for working the sidings had never been issued.

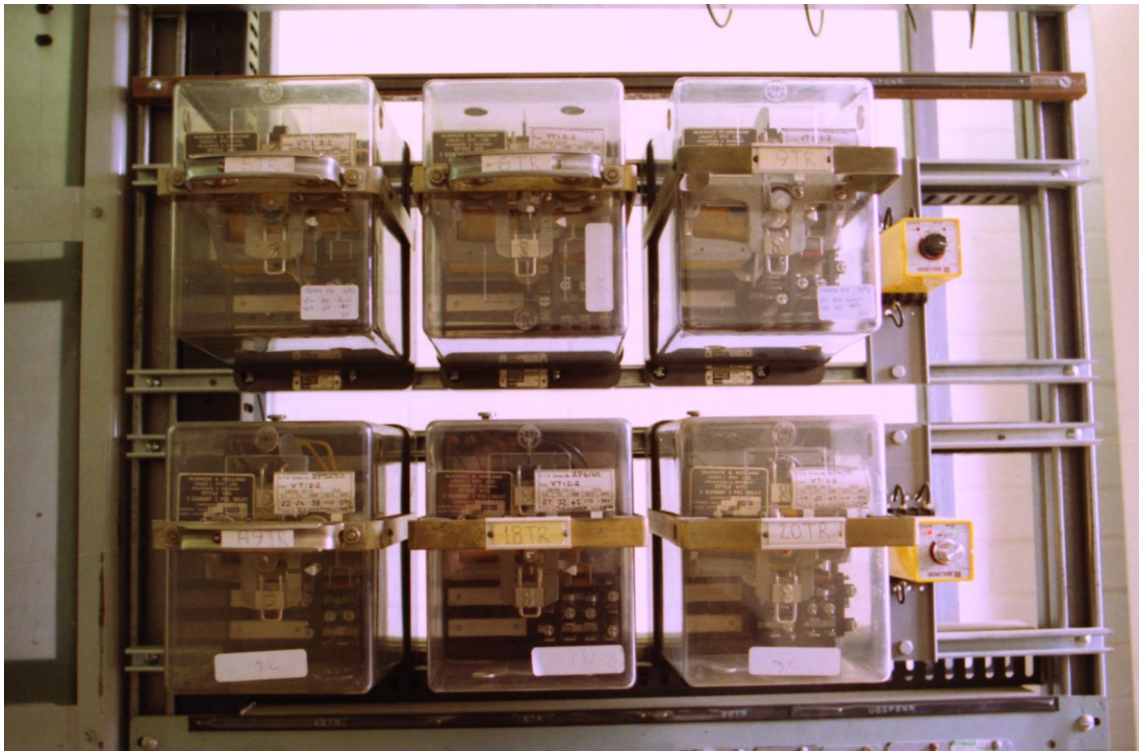
In WN 14/61 it was noted that the Webb Industries siding on Koondrook line had been abolished, and on 22 March 1961 the Estate Officer noted that the siding had been dismantled.

Closure of the Murrabit line

After the suspension of services on the Stony Crossing line, the VR continued to service Murrabit. On 20 April 1961 the Murrabit line was closed to all traffic until further notice after a bridge on the line collapsed under a train. Investigation showed that it was not worth restoring the line and it was formally closed as from 20 December 1961. At the beginning of August 1963, the line was baulked at 180 miles 5 chains 79 links on the Kerang side of Victoria Street. The remaining portion continued to be used as a head shunt for the yard.

By 1963 Australian export of flour (mainly to Asia) had collapsed and the flour milling industry was in dire straights with significant excess capacity. The Federal government instituted a 'rehabilitation programme' under which mills were purchased and closed down. The Kerang Flour Mill was closed down in 1963 under this scheme with the former owners concentrating their business at their other mill in Bridgewater. The buildings (and siding) were transferred to a Mr Long who used it to store bagged oats and super. The Department had no objection to the siding being transferred provided it did not interfere with the existing arrangement re handling bulk wheat from the silos and the right of the GEB to use the siding was protected. The private siding was also being used by a number of other users. It is not known when usage of the siding finally ceased.

(To be continued)

In the relay room I. A detail shot of the relay rack in the North Geelong A relay room. These are DC shelf relays manufactured by McKenzie & Holland. This style of relay originated in the US around 1900, although improved in detail since then. The design is notionally modular – at least during manufacture. Different types of coils can be matched with different numbers of contacts. This style of coil has two disadvantages. The minor disadvantage is its size and weight. The major disadvantage is the loose wiring connecting the relay terminals and the terminal blocks at the top of the shelf. Swapping out a relay takes significant time, particularly when checking and testing time is included, and is a safety risk.

In the relay room II. This is the relay room at Corio and a considerably different layout is shown. Again, the relays are manufactured by McKenzie & Holland, but in this case, they are two different types of miniature relays (well, miniature is a relative term). Miniature relays also originated in the US, in this case in the late 1930s as US railroads began to install relay interlockings – particularly at CTC locations. The main advantage of miniature relays is a reduction in the size of the relay room and racks. A second major advantage is the wiring. Miniature relays are mounted in base plates that are permanently fixed to the racks. The wiring is secured to these base plates, and hence swapping relays merely involved unplugging the old relay and plugging in a new one. These miniature relay designs are British and were developed post war. The racks on the left and the right background hold BR930 style relays, while the six relays in the right foreground, shown in detail below, are the older, larger, WB&S style. These larger relays are Style VTI 2 element 2 position Vane track relays, used for AC track circuits. The BR930 style series of relays does not include vane relays, hence the need to use the WB&S style miniature relays. The arrangement of this relay room was typical of the era: free wired BR930 relay interlocking, maintainer's panel on the wall at left, tiled floor, timber desk with the circuit plans on top, and the inevitable chair. All photos taken by Andrew Waugh during the 1993 Show Day SRS signal box tour.