



AUSTRALIAN RAIL TRACK CORPORATION LTD

Route Access Condition Notice

13-00019

Distributed To:	ARTC Website
Distribution Date:	27/11/13
Requested By:	ARTC
Subject:	Introduction of CTC Safeworking - Coonamia to Stirling North – Vite Vite to Maroona
Effective Period:	Until Published
Amendment Type:	Permanent (to be added to RAS)

Note: Permanent Route Access Condition Notices (RACN) are periodically updated in the ARTC Route Access Standard (RAS), at which time the relevant RACN is withdrawn.

RAS Reference:

Section: General Information **Version No.:** 1.2 **Page/s:** 21

ARTC Network Location:

Line Section: _____
Kms: _____

1. Commissioning of CTC Safeworking to replace train order working between Coonamia and Stirling North.

CTC working notice board mounted adjacent to No24 signal at 26.901km.

2. Commissioning of CTC Safeworking to replace SAW between Vite Vite and Maroona.

3. CTC Stage 3 - Winninowie

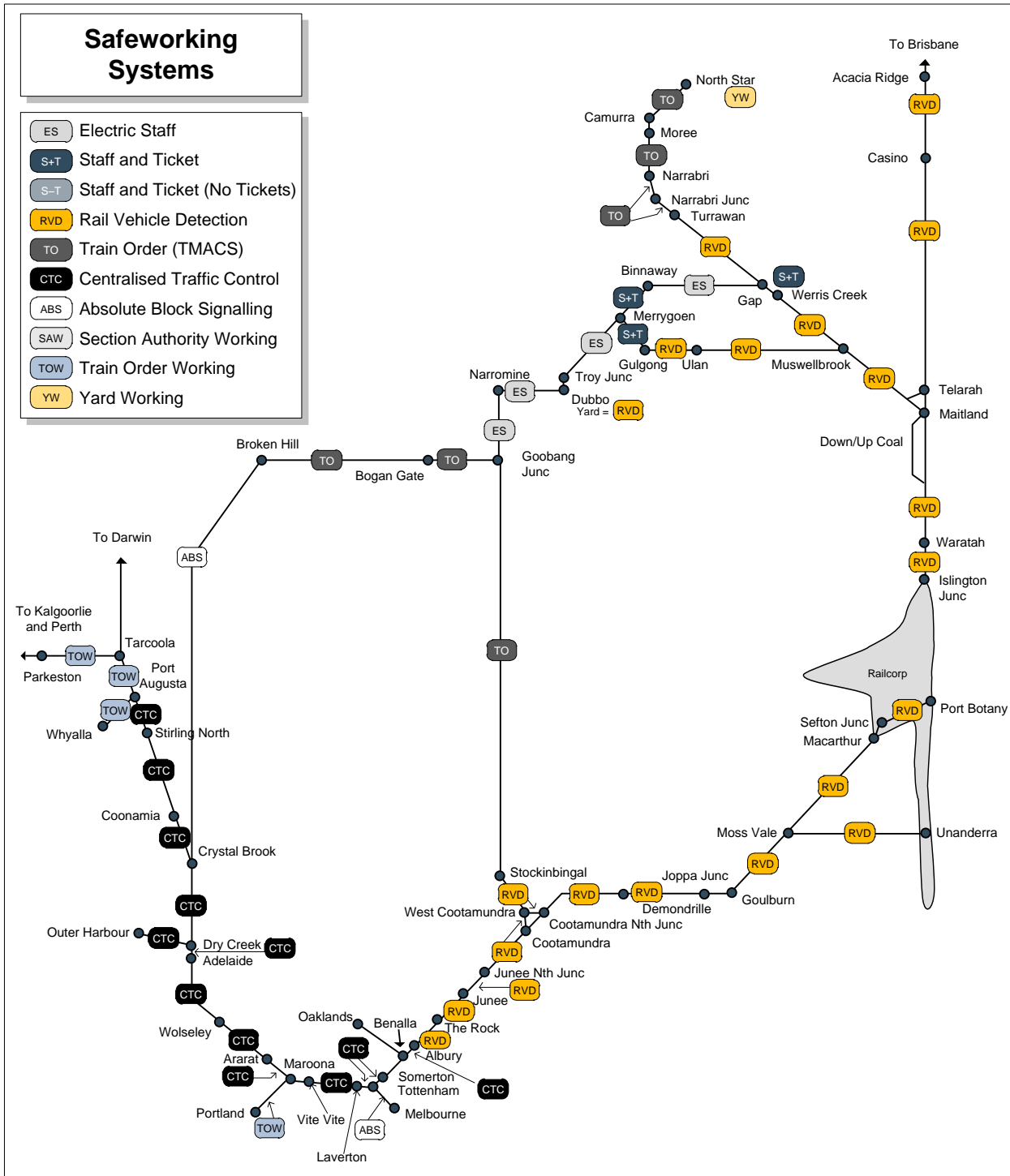
CTC for the ARTC network is now complete between Albury to Tottenham and Newport to Spencer Junction. Tottenham to Newport is still ABS.

RAS Details below:

2.11 ARTC Safeworking Systems

- The Network Controller is in charge of day-to-day operational control of safeworking systems. Network Controllers operate from Network Control Centres located at Mile End, Broadmeadow and Junee.

Figure 2.11.1 – ARTC Safeworking Systems



2.11.3 Mile End Network Control Centre

Table 2.11.3.1 Safe Working Systems Operated from Mile End Network Control Centre

Area of Control	Safeworking System
TOTTENHAM (exclusive) – NEWPORT (dual gauge) BROOKLYN – NEWPORT (BROAD GAUGE)	Single line ABS
NEWPORT (standard gauge) – GHERINGHAP	Single line CTC
GHERINGHAP – MAROONA	Single line CTC
MAROONA – WOLSELEY	Single line CTC
WEST FOOTSCRAY JUNCTION – SIMS ST JUNCTION	Double line ABS
SIMS ST JUNCTION – MOONIE PONDS CREEK APPLETON DOCK JUNCTION – APPLETON DOCK, GRAINCO AND SWANSON DOCK SIDINGS	Single line ABS
WEST FOOTSCRAY JUNCTION – TOTTENHAM (exclusive)	Double line ABS
TOTTENHAM – SOMERTON (inclusive)	Single line CTC
TARCOOLA (exclusive) – COOK – PARKESTON (exclusive)	Single line Train Order Working
TARCOOLA (exclusive) – COOK	Single line Train Order Working
SPENCER JUNCTION (exclusive) – TARCOOLA AND NORTHGATE	Single line Train Order Working
DRY CREEK NORTH JUNCTION – CRYSTAL BROOK	Single line CTC
CRYSTAL BROOK (exclusive) – COONAMIA	Double line CTC
COONAMIA – STIRLING NORTH (exclusive)	Single line CTC
STIRLING NORTH – SPENCER JUNCTION	Single line CTC
DEPENDENT ON WORKLOADS CRYSTAL BROOK – BROKEN HILL (exclusive)	Single line ABS
MILE END – DRY CREEK NORTH DRY CREEK JUNCTION – OUTER HARBOR	Single line CTC
WOLSELEY – MILE END (exclusive)	Single line CTC
BROKEN HILL YARD	Single line CTC
BROKEN HILL – GOOBANG JUNCTION	Single line electric train order working
GOOBANG JUNCTION YARD	Single line CTC
GOOBANG JUNCTION – STOCKINBINGAL (exclusive)	Single line electric train order working

TA 02 Details Below:

1. Coonamia to Stirling North - Introduction of CTC Safeworking

Stage 2 - Mambray Creek

Between the hours of 0800 on Tuesday 14th May 2013 and 1700 on Thursday 16th May 2013, signalling works will be carried out adjacent to the main line track between Port Germein 23 & 23E signals and Mambray Creek for the purpose of commissioning into service CTC safe working in lieu of Train Order safe working.

During this period the existing signalling equipment at Mambray Creek will be decommissioned and subsequently replaced with new signalling equipment as described below. As a result Mambray Creek crossing loop will be booked out of service. 7 and 20 points will be clamped and locked normal. There will be no requirement for train crews to stop and inspect points during commissioning.

The detailed changes are as follows:

Port Germein

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- Existing LED signals 23 & 23E at 26.746km will be altered to additionally display a green indication

Baroota (new intermediate signal location)

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- New LED permissive signal 33 reading for movements towards Mambray Creek will be located at 34.700km

- New LED permissive signal 34 reading for movements towards Port Germein will be located at 34.700km

Mambray Creek

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- Existing permissive signal 3 at 43.927km will be converted to an absolute LED signal and will consist of 'A, B and C' aspects

- Existing Signal 1 at 42.300km will be renumbered as 41 and converted to LED. This signal will now consist of 'A' and 'B' aspects. In addition to the aspects displayed by the 'A' arm only, this signal will now be able to display a reduce to medium speed when 3 signal is indicating a medium speed.

- New LED absolute signals 4 and 4E reading for movements towards Port Germein will be located at 44.020km on the main line and crossing loops respectively

- New LED absolute signals 23 and 23E reading for movements towards Winninowie will be located at 45.841km on the main line and crossing loop respectively.

*** Note 23 signal will be located on the right hand side of the main line track due to limited room between the main line and crossing loop tracks.*

- Existing permissive signal 24 at 45.954km will be converted to an absolute LED signal and will consist of 'A, B and C' aspects

- Existing 26 Signal at 47.550km will be renumbered as 48 and converted to LED. This signal will now consist of 'A' and 'B' aspects. In addition to the aspects displayed by the 'A' arm only, this signal will now be able to display a reduce to medium speed when 24 signal is indicating a medium speed.

- Existing switchstand indicators attached to point machines 7 and 20 will be withdrawn from service and subsequently removed.

Train Order working will continue to remain in force between Port Germein 23 & 23E

signals and Mambray Creek until the new signalling system has been commissioned.

Once the new signalling system has been commissioned, the 'Start of Train Order Working' notice boards mounted on 23 and 23E signals at 26.746km Port Germein will be relocated to signals 23 and 23E at 45.841km Mambray Creek and will read for movements travelling towards Winninowie. Note signals 23 and 23E will only clear to a yellow proceed indication until the Winninowie CTC safe working system has been commissioned at a later date.

Additionally the 'Start of CTC Working' notice board mounted on 24 Signal at 26.901km Port Germein will be relocated to 24 Signal at 45.954km Mambray Creek and will read for movements travelling towards Port Germein.

Phoenix train control system in NCCW will be updated during the course of commissioning to display all controls and indications for the new CTC loop at Mambray Creek.

The qualified safe worker shall advise the Network Controller that the works have been completed and the new signalling system has been commissioned into service. During the testing period, signal aspects within the limits of work may be lit and Train Crews may be requested by testing staff to advise the status of the signal aspects via the local Train to Train radio.

Contact:
ARTC Infrastructure Services, Darryl Hamp: 0419 299 118

2. Introduction of Centralised Traffic Control between Vite Vite Loop and Maroona

On Monday 10th of June 2013 at 1500 hours, the Section Authority System between Vite Vite Loop and Maroona will be abolished and replaced with Centralised Traffic Control signalling in accordance with Section 17 of TA20 ARTC Victorian Rules and Operating Procedures.

As this is the final section of ASW to be abolished, once the Network Controller is satisfied that the CTC system is operational, he is to ensure that no locomotives or track maintenance vehicles are logged onto the Section Authority Workstation. Once this has been confirmed, the Network Controller is to log-off the system and shutdown the Section Authority Workstation.

The CTC Single Line Sections will be Vite Vite Loop to Westmere Loop, Westmere Loop to Tatyoon Loop, and Tatyoon Loop to Maroona.

The control of all points and signals at Tatyoon Loop and the new Westmere Loop will be by the ARTC Section Authority Network Controller at NCCW Mile End.

The ARTC Network Controller can be contacted on Train to Base radio channel 2 or phone 08 8217 4232.

All movements shall remain in 600 mode. 1200 mode is not to be used.

VITE VITE LOOP: PRINCIPAL ALTERATIONS

The Commence and End Section Authority Territory boards and location boards will be abolished.

Signal GV1920: Will be converted from a Repeating Signal to an Automatic Signal, displays 'Stop', 'Normal Speed Warning', 'Clear Normal Speed' and 'Reduce to Medium Speed' aspects dependant on the aspect displayed on Signal VVE/26 at Vite Vite Loop.

WESTMERE LOOP:

New 3 Position signalling shall be introduced as follows:

From Melbourne to Adelaide:

Signal GV2085: New 3 Position Automatic Signal, displays 'Stop', 'Normal Speed Warning', 'Clear Normal Speed' and 'Reduce to Medium Speed' aspects dependent on the aspect of Home Signal WSM/6.

Signal WSM/6: New 3 Position Home Arrival Signal from Melbourne to Main or Loop Track. Displays 'Stop', 'Low Speed' (approach cleared to Main and loop), 'Medium Speed Warning', 'Clear Medium Speed' (to loop) or 'Normal Speed Warning' or 'Clear Normal Speed' (to Main track only) aspects dependent on the position of the points at the each end of the loop and the aspect of the next signal.

Signal WSM/30: New Home Departure Signal from Main track displays 'Stop' and 'Clear Normal Speed' aspects.

Signal WSM/32: New Home Departure Signal from Loop track displays 'Stop' and 'Clear Medium Speed' aspects.

From Adelaide to Melbourne:

Signal GV2186: New 3 Position Automatic Signal, displays 'Stop', 'Normal Speed Warning', 'Clear Normal Speed' and 'Reduce to Medium Speed' aspects dependent on the aspect of Home Signal WSM/26.

Signal WSM/26: New 3 Position Home Signal from Adelaide to Main or Loop Track. Displays 'Stop', 'Low Speed' (approach cleared to Main and loop), 'Medium Speed Warning', 'Clear Medium Speed' (to loop) or 'Normal Speed Warning' or 'Clear Normal Speed' (to Main track only) aspects dependent on the position of the points at each end of the loop and the aspect of the next signal.

Signal WSM/10: New Home Departure Signal from Main track into the Single Line Section, displays 'Stop' and 'Clear Normal Speed' aspects.

Signal WSM/12: New Home Departure Signal from Loop track into the Single Line Section, displays 'Stop' and 'Clear Medium Speed' aspects.

Westmere Loop will be equipped with the Emergency Automatic Mode for operations during failure conditions refer TA.20 Victorian Rules and Operating procedures - Section 17 Rule 8

Points indicators in accordance with TA20 will be used to indicate the lay of points 29U and 31D, which give access to Westmere grain siding. These hand-operated points are protected by V5P key switches and interlocked with the signalling system.

FIERY CREEK BLOCK POINT: PRINCIPAL ALTERATIONS

The Block Point signage and associated location boards will be removed and Fiery Creek Block Point will no longer be deemed a safeworking location.

TATYOON LOOP: PRINCIPAL ALTERATIONS

DICE Operation shall be abolished and all associated Signalling and Signage shall be withdrawn from service.

Tatyoan Loop shall become a fully signalled CTC Crossing Loop.

New 3 Position signalling shall be introduced as follows:

From Melbourne to Adelaide:

Signal GV2277: New 3 Position Automatic Signal, displays 'Stop', 'Normal Speed Warning', 'Clear Normal Speed' and 'Reduce to Medium Speed' aspects dependant on the aspect of Home Signal TYP/6.

Signal TYP/6: New 3 Position Home Arrival Signal from Melbourne to Main or Loop Track. Displays 'Stop', 'Low Speed' (approach cleared to Main and loop), 'Medium Speed Warning', 'Clear Medium Speed' (to loop) or 'Normal Speed Warning' or 'Clear Normal Speed' (to Main track only) aspects dependent on the position of the points at each end of the loop and the aspect of the next signal.

Signal TYP/30: New Home Departure Signal from Main track displays 'Stop' and 'Clear Normal Speed' aspects.

Signal TYP/30 is located on the right hand side of the track.

Signal TYP/32: New Home Departure Signal from Loop track displays 'Stop' and 'Clear Medium Speed' aspects.

From Adelaide to Melbourne:

Signal VD2362: New Repeating Signal displays 'Warning' and 'Proceed' aspects dependent on the aspect of Home Signal TYP/26. The signal indications on this signal will alter at the next stage of commissioning.

Signal TYP/26: New 3 Position Home Arrival Signal from Melbourne to Main or Loop Track. Displays 'Stop', 'Low Speed' (approach cleared to main and loop), 'Medium Speed Warning', 'Clear Medium Speed' (to loop) or 'Normal Speed Warning' or 'Clear Normal Speed' (to main track only) aspects dependent on the position of the points at each end of the loop and the aspect of the next signal.

Signal TYP/10: New Home Departure Signal from Main track into the Single Line Section, displays 'Stop' and 'Clear Normal Speed' aspects.

Signal TYP/12: New Home Departure Signal from Loop track into the Single Line Section, displays 'Stop' and 'Clear Medium Speed' aspects.

Signal TYP/12 is located on the right hand side of the track.

Tatyoan Loop will be equipped with the Emergency Automatic Mode for operations during failure conditions. Refer TA.20 Victorian Rules and Operating procedures - Section 17 Rule 8

All new signals in this section are approach lit. As a result, vehicles which do not drop track will see 'blacked out' signals when travelling through the section. A 'blacked out' signal is to be treated as a signal at stop.

MAROONA: PRINCIPAL ALTERATIONS

Signal VD2401: Will be converted from a Repeating Signal to an Automatic Signal, displays 'Stop', 'Normal Speed Warning' and 'Clear Normal Speed' aspects dependant on the aspect displayed on Signal 244/6 at Maroona.

Home Signal 244/10: Displays 'Stop', 'Medium Speed Warning' (to Maroona), or 'Clear Normal Speed' (to Melbourne) aspects.

Home Signal 244/12 Displays 'Stop', 'Medium Speed Warning' (to Maroona), or 'Clear Medium Speed' (to Melbourne) aspects.

SIGNAGE:

All signage associated with ASW shall be abolished.

The text 'Start Section Authority (Melbourne line)' will be removed from the boards on signals 244/10 and 244/12 at Maroona.

Automatic Mode - Westmere Loop and Tatyoon Loop will be equipped with the Emergency Automatic Mode of operations during failure conditions - Refer to TA.20 Victorian Rules and Operating Procedures Section 17, Rule 8.

Authority to pass signals at Stop during failures:

VITE VITE LOOP

*Signal VVE/30 - CTC Caution Order
Signal VVE/32 - CTC Caution Order
Signal VVE/26 - CTC Arrival Message*

WESTMERE LOOP

*Signal WSM/6 - CTC Arrival Message
Signal WSM /10 - CTC Caution Order
Signal WSM /12 - CTC Caution Order
Signal WSM /30 - CTC Caution Order
Signal WSM /32 - CTC Caution Order
Signal WSM /26 - CTC Arrival Message*

TATYOON LOOP

*Signal TYP/ 6 - CTC Arrival Message
Signal TYP /10 - CTC Caution Order
Signal TYP /12 - CTC Caution Order
Signal TYP /30 - CTC Caution Order
Signal TYP /32 - CTC Caution Order
Signal TYP /26 - CTC Arrival Message*

MAROONA

*Signal 244/ 6 - CTC Arrival Message
Signal 244 /10 - CTC Caution Order
Signal 244/12 - CTC Caution Order*

3. CTC Stage 3 - Winninowie

Upon completion of commissioning activities, the following signalling infrastructure will apply:

Mambray Creek

- Existing LED signals 23 & 23E will be altered to additionally display a green indication

New intermediate signal location

- New LED permissive signal 59 reading for movements towards Winninowie will be located at 60.100km

- New LED permissive signal 60 reading for movements towards Mambray Creek will be located at 60.100km

Winninowie

- Existing permissive signal 3 at 70.446 km will be converted to an absolute LED signal and will consist of 'A, B and C' aspects

- Existing Signal 1 at 68.022 km will be renumbered as 67 and converted to LED.

This signal will now consist of 'A' and 'B' aspects. In addition to the aspects displayed by the 'A' arm only, this signal will now be able to display a reduce to medium speed when 3 signal is indicating a medium speed aspect.

- New LED absolute signals 4 and 4E reading for movements towards Mambray Creek will be located at 70.534 km on the main line and crossing loops respectively.

Note: - Signal 4 will be placed on the non-preferred (right hand) side of the track due to track centre clearance issues.

- New LED absolute signals 23 and 23E reading for movements towards Stirling North will be located at 72.378 km on the main line and crossing loop respectively.

- Existing permissive signal 24 at 72.476 km will be converted to an absolute LED signal and will consist of 'A, B and C' aspects

- Existing 26 Signal at 74.976 km will be renumbered as 74 and converted to LED. This signal will now consist of 'A' and 'B' aspects. In addition to the aspects displayed by the 'A' arm only, this signal will now be able to display a reduce to medium speed when 24 signal is indicating a medium speed aspect.

Stirling North

- Existing Absolute Signal 14 at Stirling North will have the 'A' aspect redressed to allow the signal to indicate:-

Stop (Red / Red)

Clear Normal Speed (Green / Red) Signal 74 at Winninowie at Caution or Clear'

The 'B' aspect indications will remain unchanged

- Existing Absolute Signal 14E at Stirling North will have the 'B' aspect redressed to allow the signal to indicate:-

Stop (Red / Red)

Caution Medium Speed (Red / Yellow) Route set for Leigh Creek Line

Clear Medium Speed (Red / Green) Signal 74 at Winninowie at Caution or Clear

Issued By:

Richard Potts

Australian Rail Track Corporation

Approved By:

John Furness - Manager Standards (Minor)

NAN Ref (if applicable):