



## **TAA 0595-2010**

### **CHILTERN LOOP – ALBURY SOUTH – COMMISSIONING OF WODONGA RAIL BYPASS ISSUE OF NEW SIGNALLING DIAGRAMS No.10/10 SPRINGHURST TO WODONGA JUNCTION & 08/10 WODONGA**

This Train Notice is presented in two sections, namely-

**SECTION ONE –  
Operations & Safeworking Arrangements during the Commissioning Period**

**AND**

**SECTION TWO –  
Final Signalling Arrangements between Wodonga Junction and the South bank of  
the Murray River.**

**Note:-** For altered infrastructure and Signalling arrangements at Albury South see separate SAFE Notice.

### **SECTION ONE OPERATIONS AND SAFEWORKING ARRANGEMENTS DURING COMMISSIONING**

#### **1 OVERVIEW**

ARTC is managing the project to provide additional rail capacity between Melbourne and Sydney. Part of the works involve the construction of the Wodonga Rail Bypass. This will result in all tracks, sidings, level crossings and signalling infrastructure on the current rail alignment through Wodonga and Wodonga Coal Sidings between distance 297.741 km and the south end of the Murray River Bridge being decommissioned. This infrastructure will be removed at a later date.

A new railway station for Wodonga located between new distances 299.105 km and 299.285 km is being built as part of the rail bypass project and will be commissioned at a later date.

The rail bypass works to be commissioned during stage 3 include the provision of a double line signalled junction at Wodonga Junction, new signalling along the bypass route and the current signalling arrangements at the south end of Albury station being changed over from single colour light route signals to Victorian style 3 position speed signals.

**At commencement of the commissioning process during the period between 0210 and 1255 hours on Friday 23.07.10, the following changes will take effect:**

- The former rail alignment through Wodonga will be abandoned and decommissioned.
- The actively protected Level Crossings at Melrose Drive, Kelly Street, Station Entrance, High Street, Hovell Street and Osburn Street will be decommissioned. The equipment will be removed at a later date.
- A new Single Line Block section utilising the East Line between Chiltern Loop and Wodonga Junction including new signaling infrastructure at Wodonga Junction will be commissioned.
- The track at 302.600 km will be disconnected from the existing alignment through Wodonga and slewed to the new rail alignment between a point south of the Murray River Bridge along the bypass track to a point at Wodonga Junction distance 297.741 km.
- The new trackwork along the Wodonga bypass route will be commissioned and brought into service.
- The Absolute Occupation limits applicable to Section 3 (Alumatta Km 232.500 to Wodonga Signal Post No.2 ) will be modified to apply to Down Home Signal No.**WOD34** at Wodonga West Junction. Prior to this modification to the limits occurring, the Sectional Co-ordinator must ensure the section between Signal **WOD34** and Signal **WOD14** is clear and that a 'Permit to Foul the Line' is not in force.

***On completion of the above works and return of the Absolute Occupation for the Chiltern Loop-Wodonga Junction section, rail traffic will use the new West line rail alignment between Wodonga Junction and the south end of the Murray River bridge. Rail Traffic will be signalled as normal between Chiltern Loop and Wodonga Junction.***

**During the commissioning period between 0210 hours on Friday 23.07.10 and 1800 hours on Tuesday 03.08.10 or earlier, the following works will take place:**

- New signalling infrastructure between Wodonga distance 290.976km and Albury South as described later in this document will be commissioned and brought into service.
- The track at 297.741 km will be disconnected from the existing alignment through Wodonga and slewed to the new East line rail alignment between Wodonga Junction and a point south of the Murray River Bridge at new distance (via new rail bypass route) 302.660 km.

- The existing NSW style single colour light route signalling system at the south end of Albury yard will be replaced with Victorian style 3 position speed signalling. (Refer to separate SAFE Notice for a description of the new signaling infrastructure at Albury South.)
- The former broad gauge platform and run around tracks at Albury have already been converted to Standard gauge.
- A new Phoenix Control System operated by the Network Operations Controller Main South C at Junee Control Centre will control the new Signalling between Chiltern Loop and Wodonga Junction and Wodonga Junction to Albury.

The new Signalling arrangements are shown on Signalling Diagrams No.10/10 'Springhurst to Wodonga Junction' superseding Diagram No.102/09; No.08/10 'Wodonga' which supersedes No. 110/07; and No.12/10 'Albury' which supersedes No. 100/09.

## 2. Scope of Work

- The scope of works encompasses the decommissioning of the current rail and signalling infrastructure between Wodonga Junction distance 297.741 km and the south end of the Murray River Bridge;
- The commissioning of new track and signals on a new rail alignment between Wodonga Junction distance 297.741 km and the south end of the Murray River Bridge at new distance (via new rail alignment) at 302.600 km;
- The commissioning of Victorian 3 position speed signals south end of Albury Station Yard where the current NSW style single light route signalling signals will be replaced with Victorian style three position speed signalling. Additionally, the broad gauge back platform and engine run around have been converted to standard gauge.

## 3. Track Force Operations

Track Force operations consisting of track and signal works will take place through the area of the signal commissioning. Under no circumstances are any track force works to commence unless a qualified Protection Officer/Track Force Protection Coordinator first makes an assessment and provides the appropriate track force protection.

The qualified Protection Officer/Track Force Protection Coordinator must maintain contact with the Operations Coordinator at all times.

### 3.1 Access to the Rail Corridor

All requests for access to the Rail Corridor during the commissioning period must be referred to the nominated Protection Officer/Track Force Protection Co-ordinator on duty.

The Protection Officer/Track Force Protection Co-ordinator will then make the necessary arrangements for worksite safeworking supervision.

A Protection Officer/Track Protection Co-ordinator must be appointed for each work group requiring access to the rail corridor.

The person appointed to carry out the role of Protection Officer/Track Protection Co-ordinator must complete an assessment of the worksite to determine all known and potential rail safety hazards. Details of the hazards, together with appropriate control measures must be detailed on the Rail Safety Pre-Work Briefing ( Document *SIA-FRM-GL-OHS-0003-C* )

The Protection Officer/Track Protection Co-ordinator must also complete a Worksite Protection Plan, detailing the following minimum requirements:

- The locations of safe places,
- The date the work is being performed,
- Details of train information as obtained from the Operations Co-ordinator,
- The name and contact number of the Protection Officer/Track Protection Co-ordinator,
- The Protection Officer's/Track Protection Co-ordinator's competency number,
- For this project, the name of the Operations Co-ordinator,
- The worksite location and the type of work being performed,
- The distance limits of the worksite,
- The state of the weather on the day concerned,
- A diagram of the worksite,
- The protection arrangements applied at the worksite,
- The names and locations of other Protection Officers/Track Force Protection Co-ordinators, Flagmen and/or Lookouts employed as part of the worksite protection,
- Kilometre posts, and
- Signal Post Numbers.

All staff engaged in worksite protection activities must review the rail safety pre work brief and endorse the brief in the place provided at the base of the page.

Options for worksite protection **between Albury South and Wodonga West Junction** during the commissioning period will consist of:

- Lookout Conditions (Rule **15**, Section **15** of the ARTC Network Rules and Procedures – TA20), or
- Standard Track Force Protection (Rule **3**, Section **15** of the ARTC Network Rules and Procedures – TA20).

## **4. Methods and Procedures**

### **4.1 Chiltern Loop – Wodonga Junction**

On Friday 23<sup>rd</sup> July 2010 after the passage of 4BM7 at about 0210 hours until 1255 hours the same day, an Absolute Occupation of the single line sections Albury South to Wodonga Loop and Wodonga Loop to Chiltern Loop will be granted by the Network Operations Controller Main South C at Junee to the Operations Coordinator.

During the period of Absolute Occupation, the current signalling system between Albury South and Chiltern Loop will be “Booked out” of service. Work will then proceed to commission the new Single Line Section Chiltern Loop to Wodonga Junction by 1100 hours on Friday 23<sup>rd</sup> July 2010. On hand back of the Absolute Occupation and signalling system between Chiltern Loop and Wodonga Junction, rail movements on the new single line section between Wodonga Junction and Chiltern Loop will be signalled by the Network Operations Controller Main South at Junee. Rail movements at Wodonga Junction will be temporarily signalled from the Signal Control Panel in Albury.

#### **4.2 Wodonga Junction**

Wodonga Junction must be attended by qualified Signallers during the commissioning period. Home Departure Signals **WOD14** and **WOD2** will be lit and fixed at STOP. Rail movements will require a Train Authority to pass these signals at the ‘Stop’ position to proceed to Albury. All other Signals between Chiltern Loop and Wodonga Junction will operate as normal.

Home Signals **WOD26, WOD38, WOD24, WOD36, WOD24, WOD18, WOD6** and **AY58** will be extinguished and crossed out of use. .

Train Authority working will be in force between Wodonga Junction No. **WOD14** and **WOD2** and Albury South Signals **AY50, AY61, AY62** and **AY63**.

#### **4.3 Old Barnawartha Road (Cochranes Road) Level Crossing Wodonga**

The Old Barnawartha Road level crossing will be temporarily closed to road and pedestrian traffic during the commissioning period. Barriers will be positioned across the roadway on the east and western approaches to the crossing.

#### **4.4 Albury**

Albury will be available for the crossing of rail movements and follow on rail movements.

An Assistant Signaller Operations Controller will be in attendance at Albury to operate the local Signal Control Panel during the period of commissioning.

Additionally, a Signaller assisted by two hand signallers and a runner will be located at Albury to work under direction of the Operations Coordinator to operate point machines manually by hand as required, and to authorise rail movements past signals at stop.

All signals at the south end at Albury with the exception of No.**AY58** will be lit. Signal **AY58** will be crossed out of use.

Train Authority working will be in force between Albury South Signals **AY50, AY61, AY62** and **AY63** and Wodonga Junction Signals **WOD16** and **WOD4**.

#### **AY61, AY62 & AY63 – Changeover of Signal Heads**

Between the hours of 0600 and 1800 on Friday 23<sup>rd</sup> July 2010, the single colour light signals on the signal bridge at Albury South 646.572km will be temporarily out of service to allow the changeover of the signal heads on Signals AY61, AY62 and AY63 to Victorian 3 position colour light type.

A Hand Signaller must be appointed during the period that the signals are out of use. The Hand Signaller must act in compliance with Rule 2 (Section 4) of the ARTC Network Rules and Procedures - TA20.

## 5. Security of points

The Point machines operating crossover points **No.5, No.9** and **No.13** turnout at the junction of the double line and the single line at the southern end of the Murray River Bridge must be placed in the Hand Operating position and secured in the position required for the operation of rail traffic. Rail traffic will operate via the West or East Line as determined by the Operations Coordinator.

The keys to the padlocks securing the point clips on No.s 5, 9 & 13 points will be held by the Competent Person accompanying rail traffic movements between Wodonga West Junction and Albury South.

It will not be necessary for these points to be inspected prior to the passage of each rail traffic movement once they have been secured with the lockable point clips provided.

**IMPORTANT! Care must be taken that both ends of double ended points Nos.5 and 9 are correctly set for the intended rail movement.**

## 6. Management of rail traffic movements

Train control management is under the direction of the ARTC Main South C Network Operations Controller.

An Operations Coordinator will be in attendance and will obtain advice from the ARTC Network Operations Controller Main South C regarding the priority and precedence of rail movements between Table Top, Albury and Wodonga Junction.

The Operations Coordinator must liaise with the Network Operations Controller Main South C, the Assistant Signaller operating the local Signal control panel at Albury and the Signallers at Wodonga Junction, Albury South and Albury regarding the priority of rail movements over this section.

### 6.1 Safeworking of Rail Movements – Train Authority Working

- **“COMMENCE TRAIN AUTHORITY WORKING”** notice boards will be provided facing North bound rail movements adjacent Signal **WOD2** and **WOD14** at Wodonga Junction and for south bound rail movements adjacent Signals **AY50, AY61, AY62** and **AY63** at Albury South.
- **“END TRAIN AUTHORITY”** notice boards will be provided facing south bound rail movements adjacent Signals **WOD4** and **WOD16** at Wodonga Junction and adjacent Signal **AY15** at Albury South for north bound rail movements.

**The Commence and End Train Authority Territory Boards consist of a Red board with reflective white lettering.**

## 6.2 Issuing of a Train Authority

Safeworking cabins attended by suitably qualified safeworking personnel will be established at Wodonga Junction and Albury South from 0210 Friday 23<sup>rd</sup> July 2010 until 1800 hours Tuesday 3<sup>rd</sup> August 2010, and between Albury and Table Top from 0200 hours Friday 23<sup>rd</sup> July 2010 until 1800 hours Tuesday 27<sup>th</sup> July 2010.

During the period that the commissioning works are being undertaken, all rail movements between Albury South and Wodonga Junction will operate by means of Train Authorities.

**IMPORTANT ! A Train Authority must not be issued unless authorised by the Operations Coordinator.**

In simple terms, Train Authority Working operates on the basis of an “Absolute Block” principle where the Signaller in advance will issue a Train Authority to the Signaller in the rear for a rail movement to approach. This will be done by telephone communication between the two Signallers.

Before the issue of a Train Authority, the Single Line Section between Wodonga Junction and Albury South must be clear of rail movements. Prior to the issue of a Train Authority, the previous Train Authority issued for a rail movement must be collected by the relevant Signaller and provided the rail movement has arrived complete, cancelled by writing the words “CANCELLED” together with the time, date and signature of the cancelling Signaller.

For a movement to proceed from Wodonga Junction to Albury South, the Signaller at Albury South will dictate a Train Authority to the Signaller at Wodonga Junction who must record the Authority, read back the Authority, and then deliver the Train Authority to the crew of the relevant rail movement.

For a movement to proceed from Albury South to Wodonga Junction, the Signaller at Wodonga Junction will dictate a Train Authority to the Signaller at Albury South who must record the Authority, read back the Authority, and then deliver the Train Authority to the Driver of the rail movement.

**IMPORTANT! - UNDER NO CIRCUMSTANCES IS A TRAIN AUTHORITY TO BE PREPARED IN ANTICIPATION OF A RAIL MOVEMENT, BUT IN ALL INSTANCES, MUST ONLY BE ISSUED WHEN THE ISSUING SIGNALLER HAS PREPARED AND DICTATED THE TRAIN AUTHORITY TO THE RECEIVING SIGNALLER WHO WILL COMPILE THE TRAIN AUTHORITY AS DICTATED BY THE ISSUING SIGNALLER.**

There will be no requirement for the Driver of the rail movement to verify the Train Authority, however the Driver must sign the butt of the form when receiving and after reviewing the Train Authority.

Should it become necessary for a Signaller to cancel a Train Authority after its' issue, this can only be done on the authority of the Operations Coordinator.

From a management perspective, the Network Operations Controller Main South C remains in charge of all rail operations over the commissioning area, however, there is a requirement for a defined communications protocol that ensures that rail movements operate safely through the affected area.

### **6.3 Examples of Train Authority Texts:**

#### **Rail Movement to Proceed from Albury South to Wodonga Junction**

- ❖ *'Pass Home Departure Signal AY61, AY62, AY63 or AY50 at the Stop position and proceed on the West line to Home Departure Signal WOD16 or via the East line to Home Departure Signal WOD4 at Wodonga Junction*

#### **Rail Movement to Proceed from Wodonga Junction to Albury South**

- ❖ *'Pass Home Departure Signal WOD2 or WOD14 at the Stop position and proceed via the East/West line to Home Arrival Signal AY15 at Albury South.*

*Note 1. Indicate applicable signal and whether via the East or West line dependent on route the rail movement will operate over.*

*Note 2. Additional advice regarding the status of signals may be included in the Train Authority text.*

## **7. The Role of the Competent Person**

A Competent Person will be provided for the Wodonga Junction - Albury South section to accompany each rail movement.

The role of the Competent Person is to provide commentary to each Driver on:

- The status of signals throughout the corridor.
- The track over which the rail movement will operate, i.e. the East or West Line, and
- Other information relevant to the safe passage of the rail traffic movement which may be advised by the Operations Co-ordinator.

The competent person will hold the keys to the padlocks securing the point clips on No.s **5, 9 & 13** points.

## **8. Operation of Road Rail Vehicles (For Track Inspection Purposes)**

Road Rail Vehicles operating for the purpose of track patrol must be issued a Train Authority as detailed in Clause 6.2 of this Procedure.

The Competent Person must accompany the movement as detailed in Clause 7 of Train Notice.



## 9. Network Communications Protocol

Senders and receivers of communications must identify themselves when conducting communications.

- Communications must be clear, brief and unambiguous and relevant to the task at hand.
- Communication must be understood and agreed as to its meaning before being acted upon.
- Spoken and written safeworking communication must use the 24 hour clock to give the time of day.

The receiver must confirm the content of a message **by repeating the message** back to the sender, if the communication concerns:

- The issue of a Train Authority, or
- The issue of an Absolute Occupation, or
- The issue of Train Running Information.

The receiver must not act on the communication until the sender confirms that the message has been repeated back correctly.

### 9.1 Emergency Communications

Emergency communications must be:

- given priority, and
- answered immediately.

If there is an emergency message on the radio, other users of the channel must stop transmission immediately.

When an emergency situation needs to be communicated via the radio:

1. Say "Emergency, emergency, emergency, this is....(*your identification*)", and
2. then give brief details about the emergency.
3. If there is no immediate answer, pause and then repeat Steps 1 & 2 above.

### 9.2 Spoken Communications

If the meaning of a spoken communication is not understood:

- The receiver must ask that it be repeated, or

- If necessary, the sender and receiver must use the phonetic alphabet and spoken numbers to clarify and confirm the message

The receiver must try again as soon as practicable, or arrange alternative means to communicate with the sender, if:

- The receiver cannot understand the message, or
- The sender cannot hear or understand the reply.

### **9.3 Standard Terms**

The standard radio terms contained on the laminated sheet in each safeworking cabin **must** be used when communicating by radio.

### **9.4 Safeworking Communications – Radio Use**

A dedicated Open Channel Radio frequency will be established for safeworking and operational purposes.

All safeworking and operational communications must be effected via the radio as the primary method of communication.

**Radios** will be issued to:

- The Operations Co-ordinator,
- The Assistant Signaller appointed to operate the local Signal Control Panel at Albury
- The Competent Persons accompanying rail movements for the Wodonga Junction – Albury South Section
- The Signallers located at Wodonga Junction, Albury, Albury South and Table Top,
- The hand signaller located at Signal AY161, and,
- The supervising Track Force Protection Co-ordinator.

**NOTE:-** The supervising Track Force Protection Co-ordinator/Protection Officer will utilise a separate radio channel for communications associated with worksite protection requirements.

**9.5 Mobile telephones** will be utilised as an emergency backup if required. Mobile telephones will also be issued to:

- The Operations Co-ordinator,
- The Assistant Signaller appointed to operate the local Signal Control Panel at Albury
- The Competent Persons appointed to accompany rail movements for the Wodonga Junction – Albury South section,
- The Signallers located at Wodonga Junction, Albury, Albury South and Table Top, and
- The hand signaller located at Signal AY161.

## **10. Planning for Works**

At the commencement of each shift prior to any works being undertaken, the Operations Coordinator shall contact the Network Operations Controller Main South C at Junee and establish the proposed rail movements for the day.

The Tester in Charge and the Operations Coordinator shall then meet and come to a full understanding of the works to be performed.

Should there be a variance to the works, the Tester in Charge shall not allow the varied works to be undertaken without first liaising with the Operations Coordinator and ensuring that the variance is understood.

The Operations Coordinator will then advise the incoming Signallers and detail the activities for the day.

### **10.1 Trackwork activities**

Absolute Occupation of the Single Line sections between Albury South – Wodonga Loop and Wodonga Loop - Chiltern Loop as per separate Train Alteration Notice will be in place from 0210 hours until 1255 hours on Friday 23<sup>rd</sup> July 2010 in order that the following track work activities can take place:

- Slew and tamp No. 13 turnout. This will require rail traffic to traverse over the new West Line alignment between West Wodonga Junction and the Murray River bridge on resumption of rail services at 1255 hours on Friday 23<sup>rd</sup> July 2010.
- Signal maintenance and construction personnel will test and commission the signalling infrastructure between Chiltern Loop and Wodonga Junction during this period.

On return of the Absolute Occupation for the Chiltern Loop – Wodonga Loop single section at 1255 hours, rail traffic between Wodonga Junction and Chiltern Loop will be signalled as normal.

On resumption of rail traffic, the new rail alignment between Wodonga Junction and the Murray River bridge will be utilised for the operation of rail traffic..

From 23<sup>rd</sup> July 2010 until 27<sup>th</sup> July 2010, the following additional track and civil activities will take place:

- Remove track panels on old line.
- Rerail the East Line and tamp.
- 25.07.2010 : Weld out Murray River end of track slew.
- 26.07.2010 : Weld out Melbourne end of track slew.
- 27.07.2010 complete de-stressing of track.

## **10.2 Routing of Rail Traffic between Wodonga Junction and Murray River**

Whilst the various trackwork activities listed above take place on the new rail alignment between 297.741 km and 302.600 km, rail traffic may be routed via either the East or West lines as directed by the Operations Coordinator after consultation with the:

- Tester in Charge,
- The Trackwork Supervisor, and
- The Sectional Co-ordinator assigned to the closed bypass track.

The Operations Coordinator must advise the Competent Person accompanying the rail movement and the Network Operations Controller operating the local signal control panel in Albury of the intended route. The Competent Person accompanying the rail movement will notify the Driver accordingly.

The competent person will hold the keys to the point clips securing No.s **5, 9 & 13** points and will be required to attend the points as necessary for them to be operated to the correct lie.

## **10.3 Access to the Adjacent East/West Line**

Whilst the West Line is initially being utilised by revenue services, the East Line will be considered under Absolute Occupation. The limits will be defined by Signal **WOD4** at the Up end and Signal **WOD6** at the Down end of the bypass.

Conversely, whilst the East Line is being utilised by revenue services, the West Line will be considered under Absolute Occupation. The limits will be defined by Signal **WOD16** at the Up end and Signal **WOD18** at the Down end of the bypass.

Access to the Rail Corridor will be as detailed in the Wodonga Rail By pass rail safety method statement (SIA047). A 'Permit to Foul the Line' will require to be issued for those works which maintain the potential to foul the Danger Zone.

**Prior to the corridor being altered from the East to the West line, or vice versa, the Sectional Co-ordinator must ensure any outstanding 'Permits to Foul the Line' have been formally returned. This information must be advised to the Operations Co-ordinator prior to the status of the corridor being altered.**

#### 10.4 Track Speed during commissioning

Subject to any lesser speed restriction, the maximum speed of rail traffic during the commissioning period between West Wodonga Junction 297.500 km and the Murray River bridge at 302.600 will be 40km/h unless otherwise advised by the Operations Coordinator.

#### 11. Testing of Points and Signals

The Tester in Charge must liaise with the Operations Coordinator prior to any testing of signals or points occurring.

**As traffic permits, the Operations Coordinator will provide the Tester in Charge with a testing window in order for testing to be conducted.**

**Where the testing may impact on rail traffic movements, the Operations Coordinator must confirm the status of any signalling indications displayed with the Competent Person accompanying the rail movement.**

Testing of points and signalling which is undertaken during the period that a rail movement is approaching or traversing the work site must only be undertaken with the express permission of the Operations Coordinator and then only after the competent person accompanying the rail movement has confirmed that the Driver of the Rail movement has been informed of the status of the signals within the route.

After the interlocking control system is operating to the satisfaction of the Tester in Charge, the Tester in Charge shall arrange with the Operations Coordinator for the signals fixed at stop at the start of the commissioning to be changed over to operating from the interlocking system but vitally blocked. This shall not be done when there are any rail movements approaching or traversing the worksite. The vital blocking of these signals shall not be lifted for testing purposes without the authorisation of the Operations Coordinator.

#### 12. Documentation

The Operations Coordinator shall maintain a Train Graph for the purposes of managing conflict resolution through the commissioning limits.

The Operations Coordinator will also maintain an Events Log for the purpose of recording any rail safety related irregularities or issues on site.

Signallers at Table Top, Albury, Albury South and Wodonga Junction will enter details of all rail movements in the Train Register Books provided for each movement or activity.

**IMPORTANT! The Driver, Signaller, Hand Signaller and Competent person must ensure all points in the route are correctly set before any rail movement is authorised to pass over any points.**

### **13. Fault Reporting**

Faults relating to communications equipment provided must be promptly relayed to the Operations Coordinator.

The Operations Coordinator will maintain a fault log in which the details relating to all reported faults will be recorded.

The fault log will contain the following details:

- A description of the fault,
- The name and contact details of the person reporting the fault,
- Details relating to the follow-up actions taken by the Operations Coordinator in addressing the fault, and
- Details relating to the close out of the fault, together with the date & time this occurred.

Each report will be assigned a fault number and this will be relayed to the person reporting the fault for future reference.

## SECTION TWO

### FINAL SIGNALLING ARRANGEMENTS DESCRIPTION OF NEW INFRASTRUCTURE

#### West Wodonga 290.976 km to South bank of Murray River Bridge 302.600 km

The new Signalling arrangements are shown on Signalling Diagram Nos. 10/10 Springhurst to Wodonga Junction, and 08/10 Wodonga. These diagrams supersede Signalling Diagram Nos. 102/09 and 110/07 respectively

The tracks between Wodonga Junction and the south side of the Murray River Bridge consist of two tracks; namely the East and West Lines. Signage is provided at each end and at intermediate locations to identify the tracks for the information of infrastructure maintenance personnel and rail traffic crews.

#### 1. Points

- New crossover No. **5** applicable for movements from or to the West Line and East Line at distance 297.042 km will be provided.
- New Crossover No. **9** applicable for movements from or to the East Line and the West Line at distance 297.230 km will be provided.
- New turnout No. **13** at the junction of the East and West Lines and the single line at the south end of the Murray River Bridge at distance 302.620 km will be provided.

Points No **5, 9 and 13** are fitted with Vossloh Cogifer dual control point machines and are rated at a speed of 80km/h for the diverging move..

The point machine is interlocked with the Signalling System so that when the selector switch is placed to the hand operating position, the signals protecting the points will be secured at stop.



## Vossloh Cogifer Point Machine

If these points fail to operate correctly, the Network Operations Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points may be manually operated.

The Vossloh Cogifer point machines are provided with a selector switch and hand throw lever which, when not being operated manually, are secured by V5PSW locks.

### Manual operation of Vossloh Cogifer Points

Vossloh Cogifer point machines are provided with a long hand throw lever to allow the points to be operated manually to either normal or reverse when necessary.

To manually operate the points:-

- Unlock the V5PSW padlock on the Selector Switch.
- Pull out the locking pin from the selector switch.
- Move the Selector switch to the hand position.
- Unlock and remove the lock from the hand throw lever.
- Remove the locking pins from both sides of the hand throw lever.
- Move the hand throw lever to operate the points to the required position.
- Make sure the switch blade is hard up against the stock rail.

To restore the points from HAND to MOTOR:

- Undo and remove the V5PSW lock from the selector switch and manual operating handle where applicable.
- Move the selector switch from HAND to MOTOR.
- Ask the Network Operations Controller to test the points and confirm they are operating correctly.
- Reapply the V5PSW lock to the lever catch and the selector switch in the appropriate position.

The signals maintenance representative must be promptly advised of the circumstances.

**Note:-** Depending on the position of the points, the hand throw lever may need to be switched to the opposite side to engage the clutch to operate the points manually.

Point clips will be provided in steel boxes locked with a V5PSW padlock adjacent to each point machine.



## 2. Signals

### Illuminated 80 km/h Indicators

Intermediate Home Signals **WOD34, WOD12, WOD38, WOD36 & WOD24** and Home Departure Signals **WOD2, WOD4, WOD14, WOD16, WOD18, AY58 and AY62** are provided with “80” km/h indicators.

When a Reduce to Medium Speed with an illuminated figure “80” is displayed on any of the above signals, medium speed is defined as 80 km/h.

The illuminated white speed indicator “80” displayed with a “Reduce to Medium Speed” aspect indicates that the next signal is displaying a Clear Medium Speed aspect and an “80” illuminated indicator is also showing on that signal.

When an illuminated “80” white speed indicator is displayed in conjunction with a “Clear Medium Speed” aspect the Driver of the rail movement may proceed at the maximum speed of 80 km/h. The speed restriction of 80km/h as indicated in conjunction with the “Clear Medium Speed” aspect on any of the afore-mentioned Home Departure Signals will only apply until the rail movement has cleared the points protected by the signal.

#### The following new signals will be provided:-

**ES2909** Down Automatic Signal located on the East Line at 290.976 km will be brought into service. This Signal may display the following aspects:-

- STOP – R/R
- Normal Speed Warning – Y/R next signal **WOD12** at STOP R/R
- Clear Normal Speed – G/R next signal **WOD12** displaying Normal Speed Warning Y/R, Clear Normal Speed G/R, Reduce to Medium Speed Y/G or Reduce to Medium Speed Y/G80.

**EES2909** Down Automatic Signal located on the West Line at 290.976 km will be brought into service. This Signal may display the following aspects:-

- STOP – R/R
- Normal Speed Warning – G/R next signal **WOD34** at STOP R/R; Reduce to Medium Speed Y/R; Clear Normal Speed G/R; Reduce to Medium Speed Y/G or Reduce to Medium Speed Y/G80.

<p><b>WOD34</b> Down Home Signal located on the West line at 293.760 km will be brought into service. This Signal will display the following aspects:-</p>
<ul style="list-style-type: none"> <li>• STOP – R/R,</li> </ul>
<ul style="list-style-type: none"> <li>• Normal Speed Warning Y/R, after track EES2909T is occupied and next Signal <b>WOD14</b> at Stop R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Normal Speed G/R after track EES2909T is occupied, next Signal <b>WOD14</b> displaying Normal Speed Warning Y/R or Clear Normal Speed G/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce to Medium Speed Y/G after track EES2909T is occupied, route set for East Line next Signal <b>WOD14</b> displaying Medium Speed Warning R/Y.</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce to Medium Speed Y/G80 after track EES2909T is occupied, route set for East Line next Signal <b>WOD14</b> displaying Clear Medium Speed R/G80.</li> </ul>

A Notice Board lettered “**END TRAIN ORDER WORKING**” facing down rail traffic will be provided adjacent to Home Signal **WOD34**.

<p><b>WOD12</b> Down Home Signal located on the East Line at 293.760 km will be brought into service. This Signal will display the following aspects:-</p>
<ul style="list-style-type: none"> <li>• STOP - R/R</li> </ul>
<ul style="list-style-type: none"> <li>• Normal Speed Warning Y/R next Signal <b>WOD2</b> at STOP R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Normal Speed G/R next Signal <b>WOD2</b> displaying Normal Speed Warning Y/R or Clear Normal Speed G/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce to Medium Speed Y/G route set for West Line next Signal <b>WOD2 displaying</b> Medium Speed Warning R/Y.</li> </ul>
<ul style="list-style-type: none"> <li>• Reduce to Medium Speed Y/G80 route set for West Line next Signal <b>WOD2</b> displaying Clear Medium Speed R/G80.</li> </ul>

<p><b>WOD14</b> Down Home Signal located on the West Line at 296.888 km applicable to movements along the West Line or diverge to the East Line will be brought into service. This Signal will display the following aspects:-</p>
<ul style="list-style-type: none"> <li>• STOP – R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Normal Speed Warning Y/R next Signal <b>WOD38</b> at STOP R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Normal Speed G/R- next Signal <b>WOD38</b> displaying Normal Speed Warning Y/R; Reduce to Medium Speed Y/G or Reduce to Medium Speed Y/G80.</li> </ul>
<ul style="list-style-type: none"> <li>• Medium Speed Warning – R/Y route set for East Line next Signal <b>WOD26</b> at STOP R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Medium Speed R/G80 – route set for East Line next Signal <b>WOD26</b> displaying Normal Speed Warning Y/R or Clear Normal Speed G/R.</li> </ul>

<p><b>WOD2</b> Down Home Signal located on the East Line at 296.888 km applicable to movements along the East Line or diverge to the West Line will be brought into service. This Signal will display the following aspects:-</p>
<ul style="list-style-type: none"> <li>• STOP – R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Normal Speed Warning Y/R – next signal <b>WOD26</b> at STOP R/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Normal Speed G/R – next Signal <b>WOD26</b> displaying Normal Speed Warning Y/R or Clear Normal Speed G/R.</li> </ul>
<ul style="list-style-type: none"> <li>• Medium Speed Warning R/Y – route set for West Line next Signal <b>WOD38</b> at STOP.</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Medium Speed R/G80 – route set for West Line next Signal <b>WOD38</b> displaying Normal Speed Warning Y/R; Reduce to Medium Speed Y/G or Reduce to Medium Speed Y/G80.</li> </ul>

<p><b>WOD16</b> Up Home Departure Signal located on the West Line at 297.522 km applicable for movements to the East Line will be brought into service. The signalled route from Home Signal <b>WOD16</b> along the West Line will be inhibited until a later date. This Signal will display the following aspects:-</p>
<ul style="list-style-type: none"> <li>• STOP – R/R</li> </ul>
<ul style="list-style-type: none"> <li>• Clear Medium Speed R/G80 requires up Block set and next Signal <b>ES9454</b> displaying Normal Speed</li> </ul>

**WOD4** Up Home Departure Signal located on the East Line at 297.522 km applicable for movements along the East Line will be brought into service. The signalled route from Home Signal WOD4 to the West Line will be inhibited until a later date. This Signal will display the following aspects:-

- STOP – R/R

- Clear Normal Speed G/R requires up Block set and next Signal **ES9454** displaying Normal Speed.

**WOD38** Down Home Signal located on the West Line at 299.445 km will be brought into service. This Signal will display the following aspects:-

- STOP – R/R

- Normal Speed Warning Y/R next Signal **WOD18** at STOP R/R.

- Reduce to Medium Speed Y/G next Signal **WOD18** displaying Medium Speed Warning R/Y.

- Reduce to Medium Speed Y/G80 next Signal **WOD18** displaying Clear Medium Speed R/G80.

**WOD26** Down Home Signal located on the East Line at 299.445 km will be brought into service. This Signal will display the following aspects:-

- STOP – R/R

- Normal Speed Warning Y/R next Signal **WOD6** at STOP R/R.

- Clear Normal Speed G/R next Signal **WOD 6** displaying Normal Speed Warning Y/R or Clear Normal Speed G/R.

**WOD36** Up Home Signal located on the West Line at 301.191 km will be brought into service. This Signal will display the following aspects:-

- STOP – R/R

- Normal Speed Warning Y/R next Signal **WOD16** at STOP R/R.

- Reduce to Medium Speed Y/G80 route set to East Line requires up Block set, next Signal **WOD16** displaying Clear Medium Speed Y/G80.

**WOD24** Up Home Signal located on the East Line at 301.191 km will be brought into service. This Signal will display the following aspects:-

- STOP – R/R
- Normal Speed Warning Y/R next Signal **WOD4** at STOP R/R.
- Clear Normal Speed G/R requires up Block set next Signal **WOD4** at Clear Normal Speed

**WOD18** Down Home Departure Signal located on the West Line at 301.684 km applicable for movements to the single line will be brought into service. Signage lettered “**END VIC CTC**” will be provided adjacent to Down Home Signal **WOD18**. This Signal will display the following aspects:-

- STOP – R/R
- Normal Speed Warning Y/R next Signal **AY15** at STOP R/R.
- Clear Medium Speed R/G80 next Signal **AY15** displaying:-  
Medium Speed Warning R/Y and illuminated letter P, or -  
Clear Medium Speed R/G and illuminated letter P, or -  
Normal Speed Warning Y/R and illuminated letter M, or -  
Clear Medium Speed R/G and illuminated letter M, or - Clear  
Normal Speed and illuminated letter M, or - Medium Speed  
Warning R/Y and illuminated letter L or - Clear Medium  
Speed and illuminated letter L.

**WOD6** Down Home Departure Signal located on the East Line at 301.684 km applicable for movements to the Single Line will be brought into service. Signage lettered “**END VIC CTC**” will be provided adjacent to Down Home Signal **WOD6**. This Signal will display the following aspects:-

- STOP – R/R
- Normal Speed Warning Y/R next signal **AY15** at STOP R/R.
- Clear Normal Speed G/R next Signal **AY15** displaying:-  
Normal Speed Warning Y/R and illuminated letter P, or -Clear  
Medium Speed R/G and illuminated letter P, or - Normal  
Speed Warning Y/R and illuminated letter M, or - Clear  
Medium Speed R/G and illuminated letter M, or - Clear  
Normal Speed and illuminated letter M, or - Medium Speed  
Warning R/Y and illuminated letter L or - Clear Medium  
Speed and illuminated letter L.

**The following Signal will be removed from service:-**

- Down Automatic Signal **ES9721** located at 294.870km.



**When issuing a CTC caution order for Home signals WOD14, WOD2, WOD16, WOD4 or AY58, the ARTC Network Operations Controller Main South C shall also specify and record the track the rail movement is to take. ( i.e. - East or West line)**

- **NOTE: The setting of routes from Home Signals WOD16 & WOD4 to the West Line at Wodonga Junction will be inhibited until further notice.**
- **For altered infrastructure and Signalling arrangements at Albury South see separate SAFE Notice.**