Wollongong – Bomaderry (Nowra)

Network Control

Signallers at Wollongong, Berry and Bomaderry (Nowra)

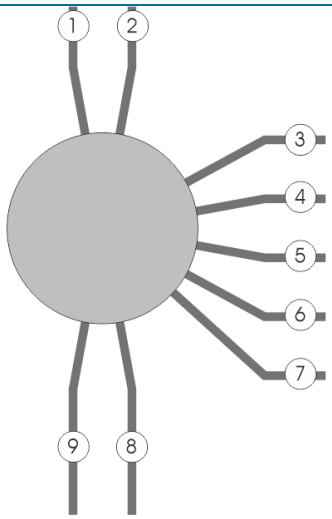
Systems of Safeworking

The Illawarra line between Wollongong and Bomaderry (Nowra) includes the sections:

Section	*System*	*Details*
Wollongong–Unanderra	Rail Vehicle Detection (RVD) double-line bidirectional	Half-pilot staffs and X, Y and Z keys available
Unanderra–Dapto	RVD single-line	Half-pilot staffs
Dapto–Albion Park	RVD single-line	Half-pilot staffs
Albion Park–Dunmore	RVD single-line	Half-pilot staffs
Dunmore–Bombo	RVD single-line	Half-pilot staffs
Bombo–Kiama	RVD single-line	Half-pilot staffs
Kiama–Berry	RVD single-line	
Berry–Bomaderry (Nowra)	RVD single-line	

Wollongong - Bomaderry (Nowra)

Diagram



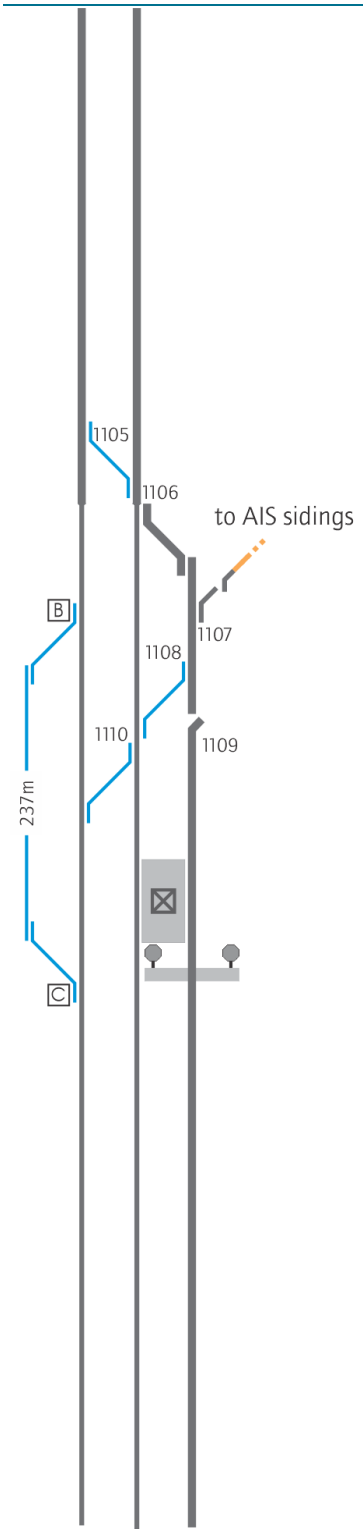
Location details

Wollongong 82.792km (NLA 416)

① Up Illawarra line (Sutherland–Wollongong)
② Down Illawarra line (Sutherland–Wollongong)
③ Down Inner Harbour North Fork line (Inner Harbour)
④ Up Inner Harbour North Fork line (Inner Harbour)
⑤ Down Port Kembla Branch line (Port Kembla)
⑥ Up Port Kembla Branch line (Port Kembla)
⑦ Allans Creek Triangle Loop line (Port Kembla)
⑧ Down Illawarra line
⑨ Up Illawarra line

Wollongong - Bomaderry (Nowra)

Diagram



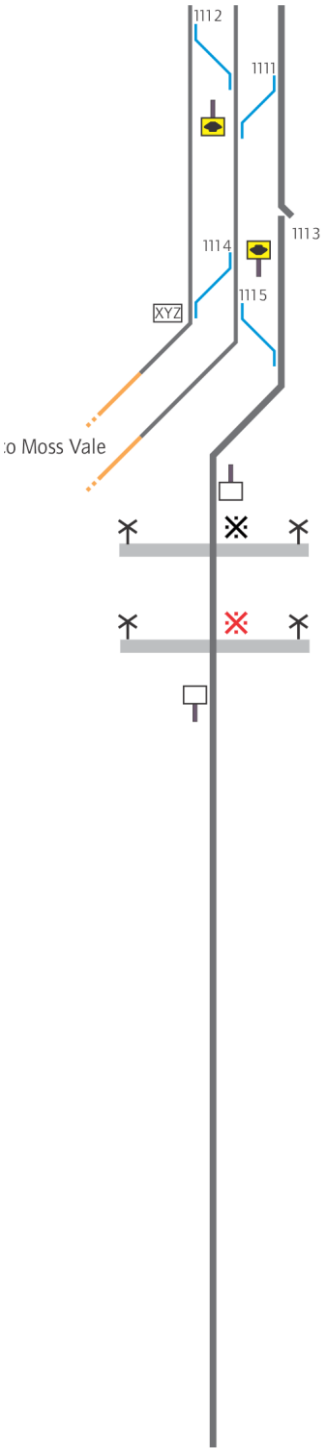
Location details

Unanderra 88.211km

- Usually controlled from Wollongong. Can be switched in
- Unanderra abuts Wollongong
- 86.750km Down Illawarra line YL/EYL: Down signal WG1006D
- 86.750km Up Illawarra line EYL/YL: Down signal WG1008U
- 1105 Down Illawarra line to Up Illawarra line
- 1106 Down Illawarra line to Illawarra line
- The half pilot staffs for the Wollongong–Unanderra section are inscribed “Unanderra W1010D Down main” and “Unanderra W1014U Up main”
- The half pilot staff from signal W1010D is the authority to pass signal W1012D during pilot staff working over the Down Illawarra line
- The half pilot staff from signal W1014U is the authority to pass signal W1012D during pilot staff working over the Up Illawarra line
- 87.900km AIS sidings EYL/YL: signal 1019
- The siding owner controls rail traffic movements on the Branch line and sidings
- 1107 Illawarra line to AIS No 3 siding
- B 88.020km Up Illawarra line to Goods siding: key from releasing switch B, released by release 1131
- 1108 Illawarra line to Down Main line
- 1109 Catch point on Illawarra line
- 1110 Down Main line to Up Main line
- Signals set at STOP by taking the emergency release key: Down outer home WG1013U, home WG1017U; Up outer home WG1034U, homes WG1028U, WG1026D and WG1024, shunting 1020
- 88.211km Unanderra. Platform 1 and 2
- 88.300km Local control panel: emergency release keys
- 88.359km Network access
- C 88.398km Up Main line to Goods siding: key from releasing switch C, released by release 1132
- Signals set at STOP by taking the emergency release key: Down outer homes WG1011D and WG1013U, home WG1017U, shunting 1021; Up outer homes WG1034U and WG1032D, homes WG1028U, WG1026D and WG1024

Wollongong - Bomaderry (Nowra)

Diagram



Location details

1112 Down Main line to Up Main line

1111 Illawarra line to Down Main line

1113 Catch point on Illawarra line

The half pilot staffs for the Unanderra–Dombarton section are inscribed "UNANDERRA W1025D DOWN MAIN TO DOMBARTON" and "UNANDERRA W1027U UP MAIN TO DOMBARTON"

The half pilot staff for the Unanderra–Dapto section is inscribed "UNANDERRA W1023"

When pilot staff working is in operation between Unanderra–Dapto or Unanderra–Dombarton, the pilot staff section extends only from the starting or home/starting signal(s) for the line concerned. It does not apply to signals on the same signal post which can be cleared for other routes

1114 Down Main line to Up Main line

XYZ 88.870km X, Y and Z keys for Unanderra–Moss Vale section near Up home WG1028U

1115 Down Main line to Illawarra line

89.038km Down speed sign for Princes Highway predictor level crossing

89.358km Nolan Street: automatic; with Manual Operation switch. Keys at Unanderra. Linked

See Special instructions

89.756km Princes Highway: automatic; with Manual Operation switch and Master Emergency switch. Keys at Unanderra

See Special instructions

EYL 90.222km Illawarra line EYL/YL: Up signal WG1030

YL 90.471km Up Unanderra–Moss Vale line YL/EYL: Up signal WG1034U

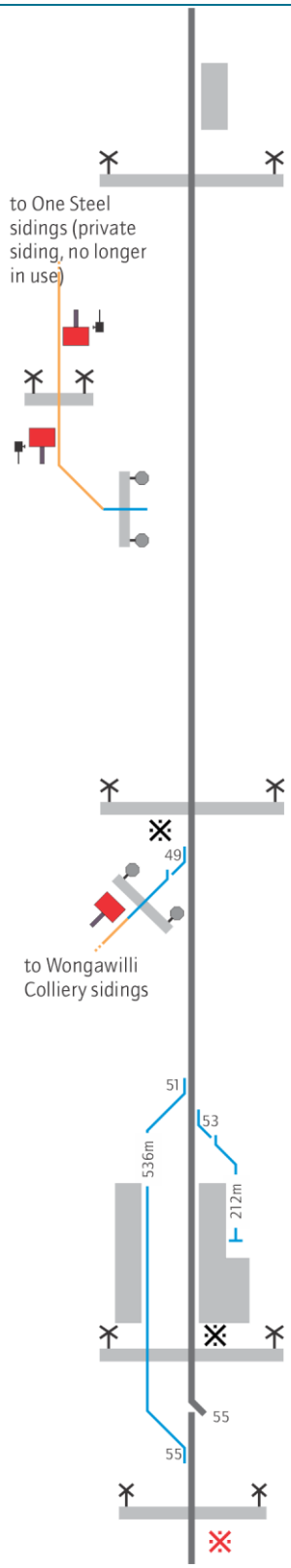
EYL 90.471km Down Unanderra–Moss Vale line EYL/YL: Up signal WG1032D

See Special instructions

90.839km Up speed sign for Princes Highway predictor level crossing

Wollongong - Bomaderry (Nowra)

Diagram



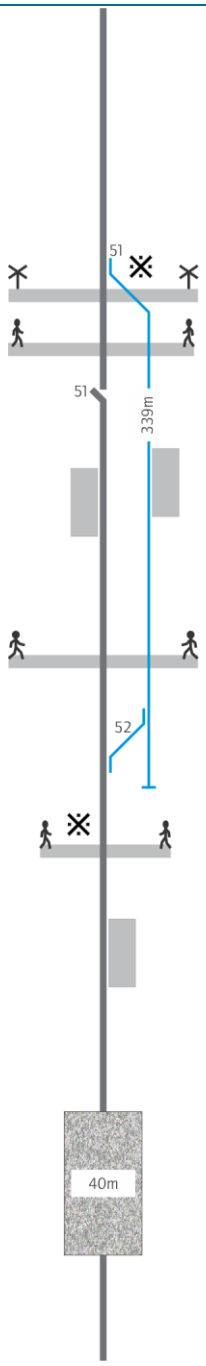
Location details

Dapto 94.791km

- Usually controlled from Wollongong. Can be switched in
- See Special instructions
- 90.963km YL/EYL: Down signal 41.1
- The half pilot staff for the Unanderra–Dapto section is inscribed "Dapto – 41/30"
- 91.527km Kembla Grange. Platform 1
- 91.664km West Dapto Road: automatic. Keys at Unanderra
- 2 x STOP signs on One Steel Arrival road. Private siding no longer in use
- 2 x Operator's push buttons for West Dapto Road level crossing on One Steel Arrival road. Private siding no longer in use
- 91.934km Network access
- 92.548km West Dapto Road on One Steel Arrival road: with manual push buttons. Keys at Unanderra. Private siding no longer in use
- 93.629km Darkes Road: automatic; with Manual Operation switch. Keys at Dapto
- Illawarra line to Wongawilli Colliery sidings
- The siding owner controls rail traffic movements in the Colliery sidings
- 93.754km Network access
- Up STOP sign on Wongawilli Colliery sidings
- Loop line to Illawarra line
- See Special instructions
- Illawarra line to Terminating road
- 94.791km Dapto. Platforms 1, 2 and 3
- 95.137km Bong Bong Road: automatic; with Manual Operation switch. Keys at Dapto
- Illawarra line to Loop line
- 96.838km Avondale Road: automatic; with Manual Operation switch and Master Emergency switch. Keys at Dapto
- See Special instructions
- The half pilot staff for the Dapto–Albion Park section is inscribed "Dapto – 41.25/41.27"
- 96.937km EYL/YL: Up signal 41.2

Wollongong - Bomaderry (Nowra)

Diagram



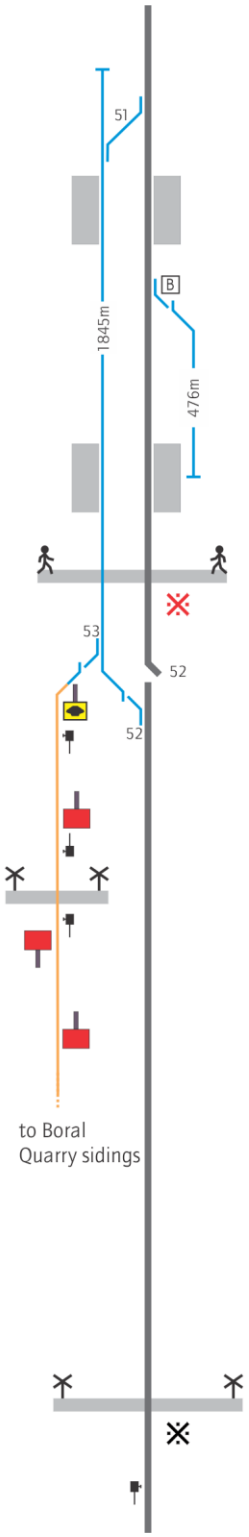
Location details

Albion Park 103.170km

- Controlled from Wollongong
- 102.122km YL/EYL: Down signal 42.3
- The half pilot staff for the Dapto–Albion Park section is inscribed "ALBION PARK – 42.28/42.26"
- See Special instructions
- 51 Illawarra line to Loop line
- 103.002km Creamery Road: automatic; with Manual Operation switch. Keys at Albion Park
- 103.017km Pedestrian
- 103.170km Albion Park. Platforms 1, 2
- The half pilot staff for the Albion Park–Dunmore section is inscribed "ALBION PARK – 42.29" and is located on the Down side of the Illawarra Main line near 42.29 signal at Oak Flats
- 103.406km Pedestrian
- 52 Loop line to Illawarra line
- 105.213km Pedestrian with Manual Operation switch
- 105.523km Oak Flats. Platform 1
- 106.840km Croom
- 107.022km EYL/YL: Up signal 42.2

Wollongong - Bomaderry (Nowra)

Diagram



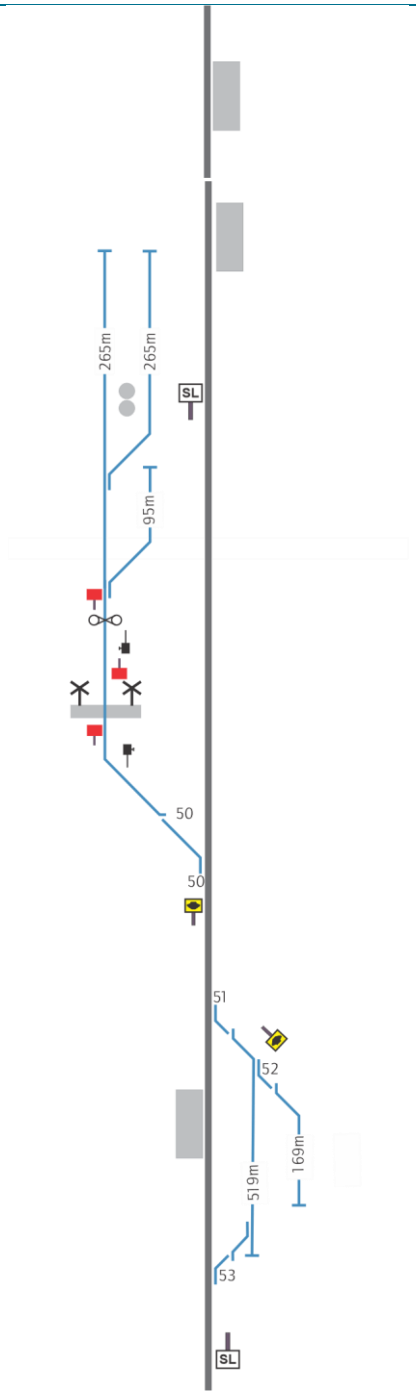
Location details

Shellharbour Junction 108.890km

- Controlled from Wollongong
- 108.067km YL/EYL: Down signal 43.3
- The half pilot staff for the Albion Park–Dunmore section is inscribed "DUNMORE – 43.26/43.28"
- See Special instructions
- 108.890km Shellharbour Junction Platforms 1, 2
- 51 Illawarra line to Loop line
- See Special instructions
- B 110.181km Illawarra line to Works siding: key from releasing switch B, released by release 71
- 110.600km Platforms 1, 2 no longer in use
- 110.750km Pedestrian, with Manual Operation switch and Master Emergency switch. Keys at Kiama
- See Special instructions
- 53 Loop line to Boral Quarry sidings
- 52 Illawarra line to Loop line
- 2 x STOP signs for Tabbita Road level crossing on Boral Quarry sidings
- 2 x Operator's push buttons for Tabbita Road level crossing on Boral Quarry sidings
- 111.025km Tabbita Road: manual with push buttons. Keys at Kiama
- Down shunting STOP sign on Boral Quarry sidings
- 112.191km Tip Road: automatic; with Manual Operation switch. Keys at Kiama
- The half pilot staff for the Dunmore–Bombo section is inscribed "DUNMORE – 43.27/43.25"
- EYL 113.000km EYL/YL: Up signal 43.4

Wollongong - Bomaderry (Nowra)

Diagram



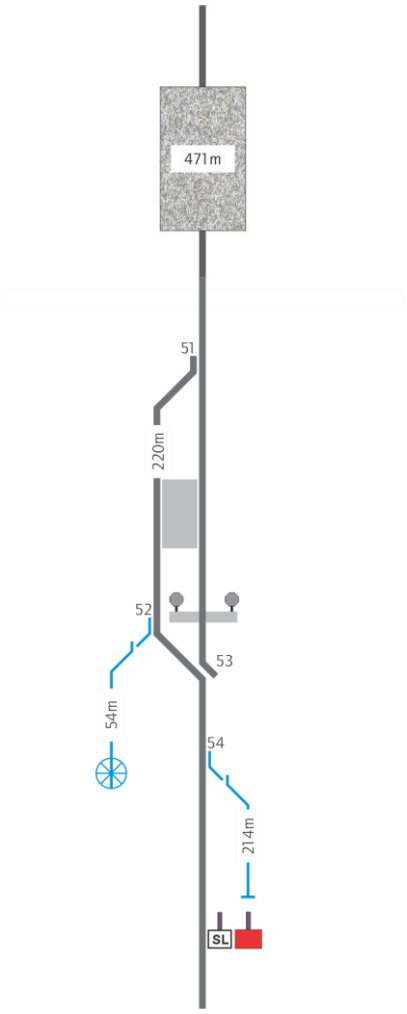
Location details

113.264km Minnamurra. Platform 1

Bombo 117.409km

- Controlled from Wollongong
- 116.279km YL/EYL: Down signal 44.1
- The half pilot staff for the Dunmore–Bombo section is inscribed "BOMBO – 44.26/44.28"
- 116.500km Slip Detector
- See Special instructions
- 117.130km Up SHUNT LIMIT sign
- Illawarra line to Bombo Quarry sidings
- 117.395km Up STOP sign for Panama Street level crossing on Quarry sidings
- 117.415km Panama Street: automatic; with manual push buttons. Keys at Bombo
- 117.439km Down STOP sign for Panama Street level crossing on Quarry sidings
- 2 x Operator's push buttons for Panama Street level crossing on Bombo Quarry sidings
- Quarry sidings to Corey's siding
- Bin road 1 to Bin road 2
- Illawarra line to Loop line
- Loop line to Down siding
- 117.409km Bombo. Platform 1
- The half pilot staff for the Bombo–Kiama section is inscribed "BOMBO – 44.25/44.27"
- Illawarra line to Loop line
- 118.887km EYL/YL: Up signal 45.5
- 118.161km Down SHUNTING LIMIT sign

Wollongong - Bomaderry (Nowra)



118.161km Kiama

Kiama 119.090km

- Controlled from Wollongong
- WARNING: All work on track for the Kiama–Berry section must be issued by either the Signaller at Wollongong or Berry
- See Special instructions
- 118.875km YL/EYL: Down signal 45.5
- See Special instructions
- Illawarra line to Loop line
- 119.090km Kiama. Platform 1 and 2 (Platform 1 adjacent to the Loop line, 208.555m; Platform 2 adjacent to the Illawarra line, 210.105m)
- Loop line to Turntable road
- 119.304km Network access
- Loop line to Illawarra line
- Illawarra line to Down siding
- 119.637km Down electric train STOP sign
- 119.637km Down LIMIT OF SHUNT sign
- 120.602km EYL/YL: Up signal 45.2

Wollongong - Bomaderry (Nowra)

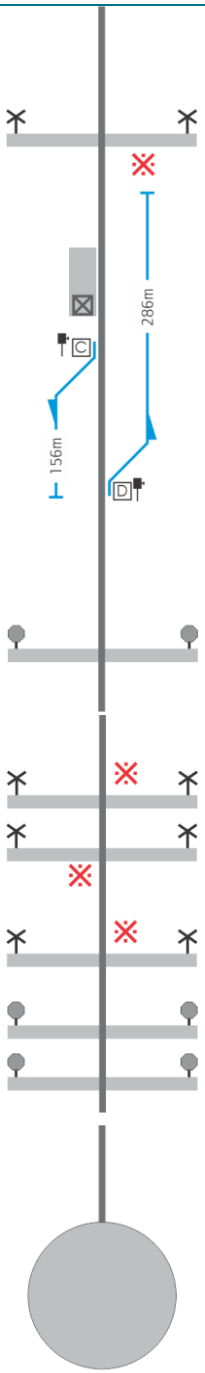
Diagram	*Location details*

- 121.668km Omega No 1
- 122.499km Omega No 2
- 123.814km Omega No 3
- 124.538km Omega No 4

- 128.493km Gerringong. Platform 1
- 131.590km Sharps Lane
- 137.518km Harley Hill Road
- 138.850km Gall's Lane
- 140.208km Pullman Street
- 140.648km Network access

Wollongong - Bomaderry (Nowra)

Diagram



Location details

Berry 140.800km

- WARNING: This location has narrow track clearances
- See Special instructions
- 140.570km YL/EYL: Down signal BE3
- 140.737km Wharf Road: automatic; Manual Operation and Master Emergency switches. Keys at Berry.
- See Special instructions
- 140.800km Berry. Platform 1
- 140.871km Berry Signal Box
- 140.921km Illawarra line to Up siding: push button release unit electrically released by 71
- 141.149km Illawarra line to Down siding: push button release unit electrically released by 71
- 141.220km Albany Street
- 141.500km EYL/YL: Up signal BE8

- 142.890km Mullers Lane: automatic; Manual Operation and Master Emergency switches. Keys at Bomaderry
- 144.378km O'Keefe Lane: automatic; Manual Operation and Master Emergency switches. Keys at Bomaderry
- 145.072km Jaspers Brush Road: automatic; Manual Operation and Master Emergency switches. Keys at Bomaderry
- 148.930km Morschels Lane
- 150.500km Fletchers Lane

Bomaderry (Nowra) 153.310km (NLA 420)

Special instructions

Operation of Diesel Multiple Unit trains between Kiama – Berry and Berry – Bomaderry (Nowra)

Diesel Multiple Unit (DMU) trains, with the exception of Xplorer cars and Endevour cars, must be worked under Block Working conditions between Kiama – Berry and Berry – Bomaderry (Nowra).

When Block Working is introduced, the applicable section blocking facilities on Wollongong panel, Berry panel and Bomaderry panel must be used.

Establishing Clearance of Up Trains at Kiama

Clearance from the Kiama – Berry section for Up trains may be established by the Area Controller (South Coast panel) ensuring at least two track circuits within the Kiama yard limits operate independently.

If the Area Controller is unable to establish that two track circuits have operated independently, the Area Controller must confirm clearance by contacting Station Staff at Kiama or the Train Crew to ensure the DMU is complete upon arrival.

Bombo Embankment 116.500km Slip Site Alarm

The mimic panel at the Wollongong Signal Complex displays two status indications.

The green light inscribed “NORMAL” will illuminate to indicate slip detector is normal.

The red light inscribed “ALARM” will illuminate, accompanied by an audible alarm to indicate the slip detector has operated.

When the slip detector ALARM indicator activates, the following protecting signals will return to Stop:

- Up Home/Starting signals at Bombo, 44.26 & 44.28
- Down Accepting signal 44.1
- Down Automatic signal 113.7

If there are trains approaching the affected area, the Signaller must use every means available to bring these trains to a stand.

When the slip detector ALARM indicator activates, the Signaller at the Wollongong Signal Complex must:

- tell the Network Controller that an ALARM condition exists at the 116.500km slip detector site
- treat the warning as a Condition Affecting the Network (CAN) in accordance with the Network Rules and Network Procedures.

Trains are not to proceed into or through the affected area until an assurance is obtained from a Civil/Geotechnical maintenance representative that the line is safe for the passage of rail traffic.

Once the Civil/Geotechnical maintenance representative has certified that it is safe for trains to pass over the affected site, the Authorised Signals Representative will then override the slip detector by inserting the key and bypass the detector. The Signaller will then lose both "NORMAL" and "ALARM" indications for the slip detector from the South Coast panel.

When the slip detector is physically restored on site, the Authorised Signals Representative will then cancel the override, which will restore the 116.500km Slip detector indications from the South Coast panel.

Once the Maintenance Representative has certified the line as safe for the passing of rail traffic, the Network Controller will then contact the Signaller and authorise a return to normal working.

Nolan Street level crossing

The level crossing warning equipment for Nolan Street level crossing is linked with the road traffic control equipment.

When the warning equipment has been isolated during work on track, the Signals Maintenance Representative must be informed before a rail vehicle is to occupy the track-circuiting for an extended period.

Princes Highway level crossing

Princes Highway level crossing is fitted with a single Master Emergency switch.

Operation of the Master Emergency switch will place Down signals WG 1023, WG1025D and WG1027U and Up signal WG 1030 at STOP. They will remain at STOP until the Manual Operation switch is operated and the level crossing equipment has operated and the booms are lowered or the Master Emergency switch is restored.

Avondale Road level crossing

Avondale Road level crossing is fitted with a single Master Emergency switch.

Operation of the Master Emergency switch will place Down signals 41.25 and 41.27 and Up signal 41.2 at STOP. They will remain at STOP until the Manual Operation switch is operated and the level crossing equipment has operated and the booms are lowered or the Master Emergency switch is restored.

Dunmore pedestrian level crossing

Dunmore pedestrian level crossing is fitted with a single Master Emergency switch.

Operation of the Master Emergency switch will place Down signals 43.25 and 43.27 and Up signals 43.6 and 43.8 at STOP. They will remain at STOP until the Manual Operation switch is operated and the level crossing equipment has operated and the booms are lowered or the Master Emergency switch is restored.

Wharf Road level crossing

Wharf Road level crossing warning equipment will operate automatically on the approach of trains in both the Up and Down directions.

Crossing trains at Dapto

If the Up train uses the Loop line, two trains with trip valves may approach the platforms at the same time.

If only one train or neither train has trip valves, the first to arrive must stand at a platform for 1 minute before the second is permitted to cross.

Crossing movements at Albion Park

When two 8 car OSCAR trains are required to cross at Albion Park the following instructions must be carried out.

- If an up service is to depart Albion Park first, signal 42.25 and 42.27 must be maintained at stop until the up service has cleared 51 points.
- If a down service is to depart Albion Park first, signal 42.26 and 42.28 must be maintained at stop until the down service has cleared 52 points.

Dunmore, safety overrun track

The area between points 51 and the bufferstop on the Sydney end of the Loop line is a safety overrun track. No equipment or rollingstock is to be left in the safety overrun track.

Clearing signals during telemetry failure

Before using operator's push buttons to clear signals at Bombo and Kiama, Qualified Workers must get permission from the Signaller at Wollongong.

Kembla Grange – Kiama – Berry

The Safeworking instructions listed below will apply in:

both directions between Home Signal 41.1 (90.976km) Kembla Grange and Home Signal 45.2 (120.600km) Kiama inclusive, and

the down direction only, from Home Starting Signals 45.25 and 45.27 (119.292km) Kiama to Home Signal BE 3 (140.570km) Berry.

Responding to a Condition Affecting the Network

Within the areas listed above, in addition to the requirements of NGE 206 Reporting and responding to a Condition Affecting the Network (CAN) to prevent rail traffic from approaching the affected portion of track, a written CAN warning must be issued to restrain rail traffic.

Basic block working

Within the areas listed above, in addition to the requirements of NSY 512 Manual block working, before authorising rail traffic that does not reliably operate track-circuits entry into the affected portion of track the Signaller must:

manually set and secure all points for the intended route, and

restrain all conflicting opposing and following rail traffic movements by:

– issuing a written CAN warning, or

– using controlled signals outside the area listed above.

If it is necessary to cross a rail traffic movement that does not reliably operate the track-circuits in the areas listed above the following will apply:

Unless points can be set and secured to prevent conflicting movements the opposing rail traffic must remain restrained until the block worked movement has arrived at the crossing location and the entire route has been set and secured for the opposing rail traffic through the crossing location.

All other conflicting and following movements must continue to be restrained, if points cannot be set and secured to prevent conflicting movements.

Note

In the areas listed above, it will not be permissible to conduct crossing movements if both rail traffic movements will not reliably operate the track circuits.

Work on Track

NWT 302 Local Possession Authority (LPA)

Signals protecting the limits of a LPA must be prevented from clearing by:

removing the half-staff, or

removing a ESML/EOL, or

clipping and locking points to prevent access, or

protecting signals are booked out of use.

Prior to any Rail Traffic movement occurring within an LPA in the applicable portions of line, all points MUST be clipped and locked at all times, or be booked out of use.

Note

If points have been clipped and locked and are required for a Rail Traffic movement, they MUST be unclipped, the route set, and the points re-clipped and locked prior to any movement occurring.

NWT 304 Track Occupancy Authority (TOA)

Signals protecting the limits of a TOA must be prevented from clearing by:

removing the half-staff, or

removing a ESML/EOL, or

clipping and locking points to prevent access, or

protecting signals are booked out of use.

Prior to any Rail Traffic movement occurring within a TOA in the applicable portions of line, all points MUST be clipped and locked at all times, or be booked out of use.

Note

If points have been clipped and locked and are required for a Rail Traffic movement, they MUST be unclipped, the route set, and the points re-clipped and locked prior to any movement occurring.

NWT 306 Track Work Authority (TWA)

If signals are used as part of TWA protection a Maintenance Representative must book out of use all protecting signals for the duration of the TWA.

NWT 308 Absolute Signal Blocking (ASB)

Signals protecting an ASB must be prevented from clearing by clipping and locking points to prevent access and/or removing an ESML/EOL.

ASB working when Berry is unattended

Note

The Network Controller will perform the Signallers responsibilities when Berry is Unattended.

When Berry is unattended, trains must be restrained at Berry prior to authorising an ASB in the Kiama–Berry or Berry–Bomaderry (Nowra) sections.

Special Features – Berry

Call Up Section

A 'CALL UP SECTION' button is provided on Berry panel to pre-set the route from BE4 without clearing the signal. This initiates the locking process which involves the 60-second delay.

- To set the up section without clearing BE4, press the call up section push button. If the route is available the '4 route set' light will flash. When the route has set the 4 route set light will change to a steady white light. 4 signal repeater will remain red.
- Pressing 4 Signal push button with 4 route set light steady will clear BE4 immediately, or after a delay if a train is on the Wharf Road level crossing controlling track circuits.

This feature can be used to prevent unnecessary operation of Wharf Road crossing during platform duties.

Closing Facility

A three position key locked closing switch (Remote/Local/Closing) will be provided to allow the interlocking to work automatically. Indications are provided to show when the interlocking has responded to the closing switch position.

- Remote: Provided for future remote control. Will not be booked in until further notice.
- Local: Provides manual control of the interlocking. Signals must be cleared manually using the panel push buttons for each train movement.

- Closing: Provides automatic operation of the Berry interlocking. Home and starting signals will clear automatically on the approach of a train should the route be clear. Panel controls are disabled when in closing.

To put the panel into Closing ensure no section blocking is applied. If there is no train within yard limits then ensure no routes are set. If a train is between BE4 and BE7 one of these signals must be cleared before the panel will go into closing. Move the closing switch from Local to Closing and ensure the closing indicator is lit.

To put the panel into Local control move the closing switch from Closing to Local and ensure the local indicator is lit. Any routes that had been automatically set with the panel in closing will remain set until the passage of the train or until cancelled by the Signaller.

When leaving the panel unattended the panel should be put into closing with the keys removed from the panel and kept in a secure location.

Release for Frame C & D

Frames C & D will be provided with electric locks and points push button release units to release the ground frames. The points pushbutton release unit consists of an SL locked box that contains a push button to unlock the frame and a 'release available' indicator (green). Instructions for operating the points pushbutton release units are inscribed inside the cover.

A releasing lever 71 for Frames C and D will be provided on the control panel. A time release on UX2T track of 60 seconds will be applied before the release becomes available after using route BE3 or BE8.

- To give the release for the sidings all signals must be at stop and UX2T time release indicator illuminated if route BE3 or BE8 was used previously.
- Operate the releasing lever 71 on the control panel. 71 Reverse indicator (yellow) will illuminate. Whenever the ground frames are normal but the releasing lever is reversed the normal indicator will flash.
- The 'Release Available' light in the points push button release units at both ground frames will flash green when the release has been given on the control panel.
- Pressing the push button will unlock the frame for 10 seconds. When the frame is unlocked then indicator will become steady green. After that time the frame will lock again and the indicator will begin to flash. Press the button each time to operate the ground frame as required for shunting movements.
- When shunting is complete restore the ground frame to normal and close and lock the push button unit.
- When the releasing lever 71 is restored to normal, the push button release units will become disabled.

It is possible to set the route BE4 or BE7 when the releasing lever has been reversed. BE4 will not clear if Frame D is not normal and BE7 will not clear if Frame C is not normal.

Miscellaneous Indicators & Audible Alarm

Lamp Fail, power supply Normal, Warning and Fail indicators will be provided. If a power supply changes state or an interlocking fails an audible alarm will alert the signaller.

The audible alarm will also sound when the panel switches between Closing, Local and Remote. The alarm may be silenced by pressing the Alarm Acknowledge button. The audible alarm will sound when the panel is in both 'Local' and 'Closing'.

Sydney Trains – ARTC interface arrangements

Sydney Trains- ARTC interface boundaries

Line	*Limits*	*Network Controller/Signaller*	*Network Rules*
Down Main	Country side of WG 1032D signal	ARTC Junee	ARTC
Up Main	Sydney side of WG 1034U signal	Signaller Wollongong	Sydney Trains

Pilot Staff Working (PSW)

The ARTC Network Controller is responsible for the introduction of PSW on the country side of WG 1025D and WG 1027U for the up and down lines to Dombarton. The ARTC Network Controller, Signaller Wollongong and Sydney Trains Network Controller must establish a conference call to agree upon:

- proposed rail traffic movements
- limits of the authority
- required protection arrangements

Special Proceed Authorities (SPA)

The ARTC Network Controller is responsible for the issue of a SPA for any movements on the country side of WG 1032D and WG 1034U signals for the up and down lines to Dombarton. The ARTC Network Controller, Signaller Wollongong and Sydney Trains Network Controller must establish a conference call to agree upon:

- proposed rail traffic movements
- limits of the authority
- required protection arrangements

Work on Track

Where any work on track activity within the Sydney Trains network requires protection from the adjacent network owner, The ARTC Network Controller, Signaller Wollongong and the Protection Officer must establish a conference call to agree upon:

- affected rail traffic movements
- location of work
- required protection arrangements
- duration of work

Where work on track will be conducted and the work extends into an ARTC controlled area, or work on track will require protection to be provided by the ARTC Network Controller, the following instructions will apply:

Lookout Working

Lookout working must not be implemented in the ARTC Network:

- during darkness, or
- if visibility does not allow clear sighting of rail traffic (terrain, fog, heavy rain or dust may restrict visibility), and
- for a period longer than 2 hours, (If access is required for longer than two hours, a new request must be made).
- if the work involves more than eight workers including lookouts

Absolute Signal Blocking

When requesting Absolute Signal Blocking (ASB) as a minimum the worksite must be protected by:

- Two consecutive controlled signals can be set at STOP with blocking facilities applied, or
- One controlled absolute signal can be set at STOP with blocking facilities applied, and
  - removing an ESML/EOL key, or
  - securing points to prevent access, or
  - there being an easily-reached safe place is available and a Lookout provided.

When requesting ASB, the Protection Officer must identify the line and define the worksite location as being between:

- two signals, or
- a signal and a set of points, or
- a signal and the end of a terminal line, or
- a set of points and the end of a terminal line.

Signals and points must be identified by their numbers.

Sydney Trains Protection Officers must use a NRF 015C form to record details of Absolute Signal blocking issued by ARTC Network Controller

Note

An ASB number is not required for an ASB issued by the ARTC Network Controller.

Down Main line between WG1025D signal and WG1032D signal.

The Signaller at Wollongong is responsible for implementing Absolute Signal Blocking (ASB) in accordance with the Sydney Trains Network Rules and Procedures when a worksite is established on the Down Main line between WG1025D signal and WG1032D signal.

If additional protection is required for the ASB, the Signaller at Wollongong must place blocking facilities on the release for WG1052U signal and tell the ARTC Network Controller at NCCS.

Down Main line on the country side of WG1032D signal.

The ARTC Network Controller at NCCS is responsible for implementing Absolute Signal Blocking (ASB) in accordance with the ARTC Network Rules and Procedures when a worksite is established on the Down Main line on the country side of WG1032D signal.

The ARTC Network Controller at NCCS must obtain an assurance from the Signaller at Wollongong that WG1031D signal is at STOP and blocking facilities have been applied.

Up Main line between WG1034U signal and WG1027U signal.

The Signaller at Wollongong is responsible for implementing ASB in accordance with the Sydney Trains Network Rules and Procedures when a worksite is established on the Up Main line between WG1034U signal and WG1027U signal.

If additional protection is required for the ASB, the Signaller at Wollongong must place blocking facilities on the release for WG1052U signal and tell the ARTC Network Controller at NCCS.

Up Main line on the country side of WG1034U signal.

The ARTC Network Controller at NCCS is responsible for implementing ASB in accordance with the ARTC Network Rules and Procedures when a worksite is established on the Up Main line on the country side of WG1034U signal.

The ARTC Network Controller at NCCS must obtain an assurance from the Signaller at Wollongong that WG1033U signal is at STOP and blocking facilities have been applied.

Track Occupancy Authority (TOA)

Down Main line on the country side of WG1032D signal.

The ARTC Network Controller at NCCS is responsible for authorising a Track Occupancy Authority (TOA) in accordance with the ARTC Network Rules and Procedures on the Down Main line on the country side of WG1032D signal.

The ARTC Network Controller NCCS must obtain an assurance from the Sydney Trains Signaller at Wollongong that WG1031D signal is at STOP and blocking facilities have been applied.

If it is necessary remove the Half Pilot Staff from WG1025D signal permission must be obtained from the Sydney Trains Signaller Wollongong.

Down Main line on the Sydney side of WG1032D signal.

The Sydney Trains Network Controller is responsible for authorising a TOA on the Down Main line on the Sydney side of WG1032D.

The Signaller at Wollongong is responsible for issuing and protecting a TOA on the Down Main line on the Sydney side of WG1032D signal.

If a worksite needs to be established within 500 metres on the Sydney side of WG1032D signal, an abutting TOA for the country side of WG1032D signal must be in place prior to the establishment of the worksite.

Before work commences the worksite must be protected in accordance with the Network Rules relevant for the location of the work.

Up Main line on the country side of WG1034U signal.

The ARTC Network Controller at NCCS is responsible for implementing a (TOA) in accordance with the ARTC Network Rules and Procedures on the Up Main line on the country side of WG1034U signal.

The ARTC Network Controller at NCCS must obtain an assurance from the Signaller at Wollongong that WG1033U signal is at STOP and blocking facilities have been applied.

If it is necessary remove the Half Pilot Staff from WG1027U signal permission must be obtained from the Sydney Trains Signaller Wollongong.

Up Main line on the Sydney side of WG1034U signal.

The Sydney Trains Network Controller is responsible for authorising a TOA on the Up Main line on the Sydney side of WG1034U.

The Signaller at Wollongong is responsible for issuing and protecting a TOA on the Up Main line on the Sydney side of WG1034U signal.

If a worksite needs to be established within 500 metres on the Sydney side of WG1034U signal, an abutting TOA for the country side of WG1034U signal must be in place prior to the establishment of the worksite.

Before work commences the worksite must be protected in accordance with the Network Rules relevant for the location of the work.

Local Possession Authorities (LPA)

ARTC only LPA

Line	Limits
Down Main	Country side of WG 1032D signal
Up Main	Country side of WG 1034U signal

Sydney Trains only LPA

Line	Limits
Down Main	Sydney side of WG 1032D signal
Up Main	Sydney side of WG 1034U signal

Sydney Trains – ARTC back to back LPA

Line	Limits
Down Main	WG 1032D signal
Up Main	WG 1034U signal

Where a back to back Possession is implemented, the following instructions will apply:

Worksites and rail vehicles that need to move from Sydney Trains territory to ARTC territory are authorised and supervised by the ARTC Possession Protection Officer.

Worksites and rail vehicles that need to move from ARTC territory to Sydney Trains territory are authorised and supervised by the Sydney Trains Possession Protection Officer.

Note

ARTC will:

- advertise Local Possession Authorities (LPAs) in a Train Alteration Advice (TAA)
- record Network Incident Notices (NINs) on a Rail Event

Use of Forms

Where it is necessary to compile Safeworking forms associated with work on track, train operations or infrastructure maintenance, the following instructions will apply:

Activity	*Form*
Worksite Protection or Proceed Authority issued by ARTC Network Controller NCCS See NOTE	ARTC form
Worksite Protection or Proceed Authority issued by Signaller Wollongong	Sydney Trains form
Infrastructure maintained by ARTC	ARTC form
Infrastructure maintained by Sydney Trains	Sydney Train form

Note

Sydney Trains Protection Officers must use a NRF 015C form to record details of Absolute Signal blocking issued by ARTC Network Controller

Related documents

NLA 416 *Wollongong*

NLA 420 *Bomaderry (Nowra)*

Effective date

15 January 2024

