

Broadmeadow–Newcastle Interchange

Network Control

Signaller at Broadmeadow (Newcastle panel)

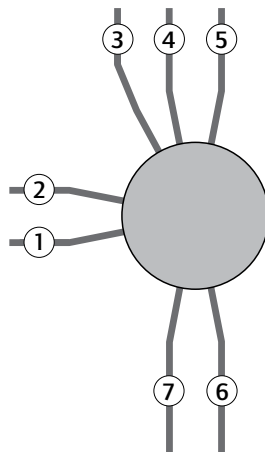
Systems of Safeworking

The Main North line between Broadmeadow and Newcastle Interchange is Rail Vehicle Detection (RVD) territory. It includes the sections:

- Woodville Junction–Hamilton Junction.

Diagram

Location details



Broadmeadow and Woodville Junction 162.842km (NLA 318)

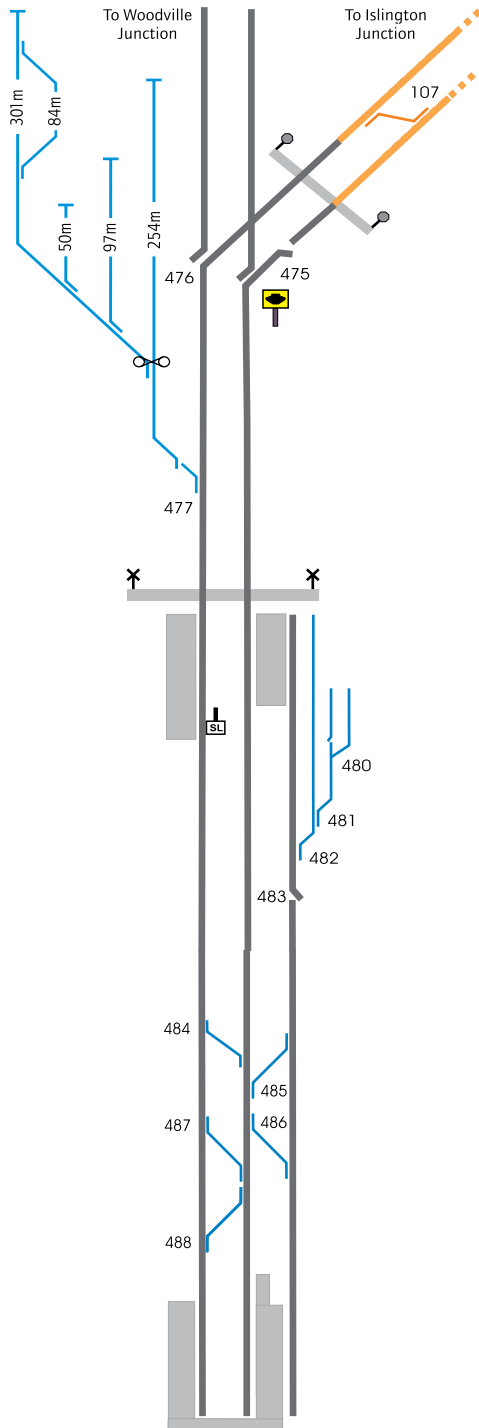


- ① Up Main North line (Gosford–Broadmeadow)
- ② Down Main North line (Gosford–Broadmeadow)
- ③ Down Relief line (to Islington Junction)
- ④ Down Islington Loop line (to Maitland)
- ⑤ Up Islington Loop line (to Maitland)
- ⑥ Down Hamilton Loop line
- ⑦ Up Hamilton Loop line

Broadmeadow–Newcastle Interchange

Diagram

Location details



Hamilton Junction 164.549km



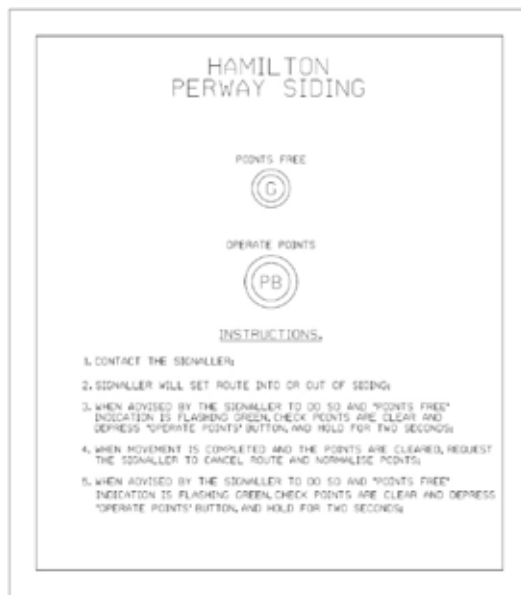
- ! Controlled from Broadmeadow (Newcastle panel)
- 164.837km Network Access
- EYL 164.045km Down Main North line: Down signal IJ 21
- YL 164.210km Up Main North line: Up signal HN12
- ! See Special instructions
- 476 Up Branch line to Down Main line
- 475 Down Branch to Up Main line (Catchpoint spiked, clipped and XL locked in the Normal (Closed) position)
- ✕ 164.529km Beaumont Street: manual from signal box. Keys at Broadmeadow
- 164.549km Hamilton Junction. Platforms 1, 2
- SL 164.740km Up SHUNT LIMIT sign
- 480 Number 4 Down siding to Number 3 Down siding
- 481 Number 3 Down siding to Number 2 Down siding
- 482 Number 2 Down siding to Number 1 Down siding
- 483 Catchpoints Transit Road
- Down siding 4 217mts
- Down siding 3 217mts
- Down siding 2 371mts
- Down siding 1 371mts
- 484 Down Branch road to Up Branch road
- 485 Transit Road to Down Branch
- 486 Up Branch road to Transit Road
- 487 Down Branch road to Up Branch road
- 488 Up Branch road to Down Branch road
- 165.474km Newcastle Interchange. Platforms 1, 2 & 3

Broadmeadow–Newcastle Interchange

Special instructions

Operation of 477 Points

477 Points are set by the Signaller but operated locally by a Qualified Worker using 477 points pushbutton unit. The pushbutton unit consists of an SL locked box that contains an 'Operate Points' pushbutton and a 'Points Free' indicator (flashing green). Instructions for working trains into or out of the Perway Sidings are inscribed inside the pushbutton unit locked box. A telephone is also provided. See pushbutton layout below.




Operation of 477 points by setting signal routes

- The Qualified Worker will contact the Signaller to discuss the train movement.
- The Signaller will set either 17(S) or 20(S)A route.
- The signal route on the new panel in Broadmeadow Signalling Complex will set but the signal will remain at stop (i.e. 477 points have not operated) and the 'Points Free' indication on 477 points pushbutton unit will flash green.
- When advised by the Signaller, the Qualified Worker will visually ensure the track over the points is clear and any approaching track vehicles are stationary. Observe the 'Points Free' indicator is flashing green.
- Depress and hold the pushbutton for 2 seconds to operate the points.
- The signal will clear for the selected route once the points are in the correct position.

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Operation of 477 points by calling the points

- The Qualified Worker will contact the Signaller to discuss the train movement.
- The Signaller will call 477 points either 'normal' or 'reverse' as required.
- The 'Points Free' indication on 477 points pushbutton unit will flash green.
- When advised by the Signaller, the Qualified Worker will visually ensure the track over the points is clear and any approaching track vehicles are stationary. Observe the 'Points Free' indicator is flashing green.
- Depress and hold the pushbutton for 2 seconds to operate the points.
- The 477 points on the Newcastle panel at the Broadmeadow Signalling Complex will indicate either 'normal' or 'reverse', once the points are in the new position.

 NOTE: 477 points must be restored to the normal position on completion of the train movements

Network access level crossing 163.957km

The Signaller Broadmeadow (Newcastle panel) is responsible for protecting the Network access level crossing at 163.957km on the Up and Down Main lines.

The following instructions must be followed to allow road vehicle crossing at the Network access level crossing.

Qualified Worker:

1. Obtain permission from the Signaller Broadmeadow (Newcastle panel) to use crossing.
2. Unlock and remove the chains on both sides of crossing
3. When crossing has been made, make sure that the chains on both sides of crossing have been replaced and are locked.
4. Tell the Signaller when the crossing is clear.

Signaller

Prior to giving permission for a vehicle to use the Network access level crossing:

1. Place at STOP and apply blocking facilities to:
 - HN 16 signal for the Down Main route, and
 - HN 12 signal.
2. Ensure there no is approaching rail traffic between:
 - HN 16 signal and the crossing on the Down Main line, and
 - HN 12 signal and the crossing on the Up Main line.
3. Tell the Qualified Worker that they may use the Network access level crossing

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Sydney Trains - ARTC interface boundaries

Line	Limits	Authorising Network Controller/Signaller	Network Rules
Down Main	Islington Junction side of IJ 21 signal	ARTC Broadmeadow	ARTC
Up Main	Sydney side of HN 12 signal	Broadmeadow (Newcastle panel)	Sydney Trains

In applying the Network Rules and Network Procedures, the Signaller Broadmeadow (Newcastle panel) must treat the ARTC Network Controller as an affected Network Control Officer.

The following instructions will apply if work on track will be conducted which:

- extends into an ARTC controlled area, or
- requires protection to be provided by the ARTC Network Controller,:

Lookout Working

Where Lookout Working is implemented on the Up Main line between IJ 24 signal and HN 12 signal and on the Down Main line on the Islington Junction side of IJ 21 signal the following conditions apply.

Lookout working must not be implemented:

- during darkness
- if visibility does not allow clear sighting of rail traffic (terrain, fog, heavy rain or dust may restrict visibility)
- for a period longer than 2 hours

If access is required for longer than two hours, a new request must be made.

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Absolute Signal Blocking/Controlled Signal Blocking

Down Main line

The ARTC Network Controller Broadmeadow is responsible for implementing Controlled Signal Blocking (CSB) in accordance with the ARTC Network Rules for a worksite on the Down Main line on the Islington Junction side of IJ 21 signal.

Up Main line

The ARTC Network Controller at Broadmeadow is responsible for implementing CSB for the Up Main line on the Islington Junction side of HN 12 signal in accordance with the ARTC Network Rules.

The Signaller Broadmeadow (Newcastle panel) is responsible for implementing ASB in accordance with the Sydney Trains Network Rules if the worksite is located on the Hamilton Junction side of HN 12 signal.

If it is necessary for additional protection to be provided for an ASB protected by HN 12 signal, the Signaller Broadmeadow (Newcastle panel) must apply blocking facilities to prevent the clearing of IJ 24 signal and advise the ARTC Network Controller Broadmeadow.

Additional Requirements for CSB

When CSB is issued on the Down Main between IJ 21 signal and IJ 23 signal, or the Up Mainline between IJ 24 signal and HN12 signal the following conditions apply.

Protection for CSB must include:

- Two consecutive controlled signals set at STOP with blocking facilities applied, or
- A Manual Points Control mechanism removed to set controlled absolute signals at STOP, or
- One controlled signal set at STOP with blocking facilities applied, and
 - A set of points secured to prevent access, or
 - An easily-reached safe place is available and a Lookout provided.

Where additional protection is required by another Signaller/Network Controller, Signallers/Network Controllers must confer and obtain an assurance that blocking facilities have been applied to applicable signals prior to granting the ASB/CSB.

Track Occupancy Authority (TOA)

Down Main Line

The ARTC Network Controller Broadmeadow is responsible for implementing the TOA on the Down Main line on the Islington Junction side of IJ 21 signal in accordance with the ARTC Network Rules

Up Main Line

The ARTC Network Controller at Broadmeadow is responsible for implementing a TOA for the Up Main line on the Islington Junction side of HN12 signal in accordance with ARTC Network rules.

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Track Work Authorities (TWA)

Down Main line

The ARTC Network Controller at Broadmeadow is responsible for implementing a TWA on the Down Main line using signal IJ 21.


Up Main line

The ARTC Network Controller at Broadmeadow is responsible for implementing a TWA on the Up Main line using IJ 24 signal, the TWA worksite must not extend beyond HN12.

Local Possession Authorities (LPA)

ARTC only LPA

Line	Limits
Down Main	Islington Junction side of IJ 21 signal
Up Main	Islington Junction side of HN 12 signal

 NOTE: If points need to be secured, the ARTC Network Controller must request the Signaller Broadmeadow (Newcastle panel) to protect the possession limit by placing blocking facilities at 476 points

Sydney Trains only LPA

Line	Limits
Down Main	Hamilton Junction side of IJ 21 signal
Up Main	Hamilton Junction side of 107 points (Islington Junction)

Sydney Trains - ARTC back-to-back LPA's

Line	Limits
Down Main	Islington Junction side of IJ 21 signal
Up Main	Islington Junction side of HN 12 signal

Where a back to back LPAs are 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.


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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	Limits
Worksite Protection or Proceed Authority issued by ARTC Network Controller Broadmeadow	ARTC form
Worksite Protection or Proceed Authority issued by Signaller Broadmeadow (Newcastle panel)	Sydney Trains form
Infrastructure maintained by ARTC*	ARTC form
Infrastructure maintained by Sydney Trains*	Sydney Trains form

 NOTE: Where it is necessary to compile an Infrastructure Booking Authority for signalling infrastructure that is dually controlled, the Maintenance Representative must issue a form to both Network Controller Broadmeadow and Signaller Broadmeadow (Newcastle panel)

 NOTE: ARTC will

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

Recognition of RISI and Railway Safety Worker Competencies

Where work or activities will occur between Islington Junction and Hamilton Junction that require RISI or a RSW competency, mutual recognition of RISI and RSW cards will apply. Recognition of RISI and RSW competencies is detailed in the table below.

Workers	RSI	RSW competency
ARTC Employees	RIW card	RIW card
Contractors engaged by ARTC	RIW card	RIW card
Sydney Trains employees	RIW card or RSW issued by TfNSW	RSW issued by TfNSW
Contractors engaged by Sydney Trains	RIW card	RIW card

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Train Whistle - Hamilton Sidings or Yard - Newcastle Interchange


Whilst conducting train preparation in Hamilton Sidings or Yard, town train whistles are only to be tested in the rear cab (Hamilton end) and the 4th and 5th cars (if an 8 car train). The lead car (Newcastle end) is to be tested only on departure from Hamilton Sidings or Yard.

When departing Newcastle Interchange, the country train whistle is to be tested between Selma and Dibbs Streets, on the approach to Maitland Road Bridge.

The rear car (Newcastle interchange end) country train whistle is to be tested on departure from the next change end location, eg Sydney Terminal.

Country train whistles for the 4th and 5th cars (if an 8 car train) are to be tested when the set next divides, eg Sydney Terminal.

In exception to train prep procedures for V-sets and Oscar trains, the town and country train whistles must **NOT** be sounded during train preparation within Hamilton Sidings or Yard.

 NOTE: This does not prevent the sounding of train whistles at any time, if required to warn people on or near the track or in an emergency situation.

Dual Control Signal

IJ 24 signal is dual control from Broadmeadow:

IJ 24 will only clear for a route on the Up Islington loop or Up Main when accepted by the Signaller Broadmeadow (Newcastle panel).

Newcastle Interchange

Amalgamating & Dividing on Platforms

When a train is required to amalgamate or divide on the platform at Newcastle interchange. Prior to commencing the movement, the Qualified Worker directing the movement must contact the Area Controller Broadmeadow, Newcastle panel, and request that the signals giving entry to, and departure from the platform, be placed at STOP with Blocking facilities applied.

The Area Controller must confirm with the Qualified Worker that Blocking facilities have been applied.

Once the movement is complete the Qualified Worker must tell the Area Controller that the movement is complete and blocking facilities are no longer required.

Related documents

NLA 314 Gosford–Broadmeadow

NLA 318 Broadmeadow and Woodville Junction

Effective date

14 January 2019