

## Central–Hornsby

### Network Control

Signallers at Rail Operations Centre (ROC) - North Shore panel.

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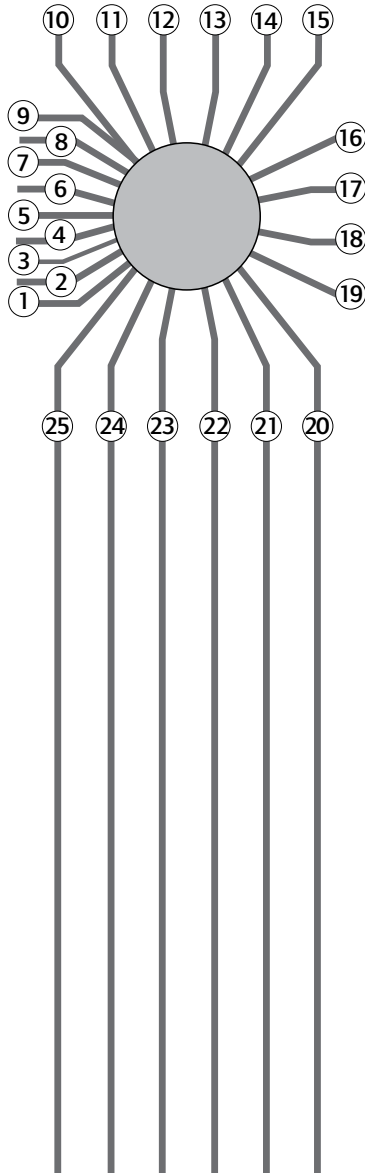
### Systems of Safeworking

The Shore line between Central and Hornsby is Rail Vehicle Detection (RVD) double-line territory. It includes the sections:

- Central–North Sydney
  - North Sydney–Chatswood
  - Chatswood–Lindfield
  - Lindfield–Gordon
  - Gordon–Hornsby.
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## Central–Hornsby

### Diagram



### Location details

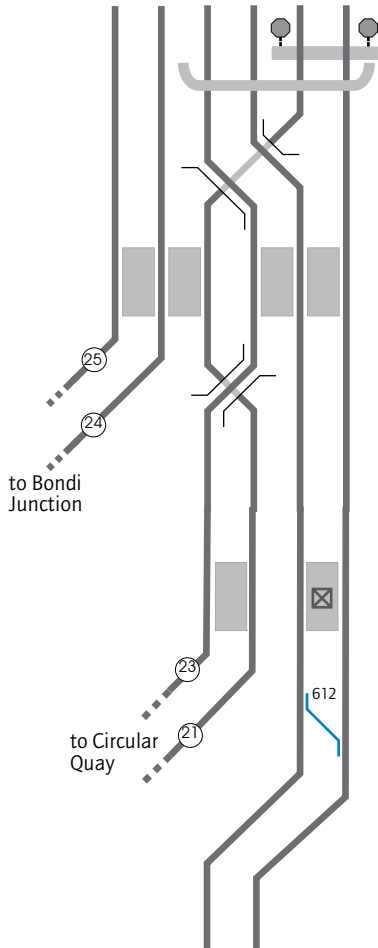
#### Central 0.000km (NLA 100)



- ① Down Airport line (Central–Sydenham)
- ② Up Airport line (Central–Sydenham)
- ③ Eveleigh Dive
- ④ Up Illawarra Relief line (Bondi Junction–Erskineville)
- ⑤ Down Illawarra Relief line (Bondi Junction–Erskineville)
- ⑥ Down Illawarra line (Central–Sutherland)
- ⑦ Up Illawarra line (Central–Sutherland)
- ⑧ Down Illawarra Local line (Central–Sutherland)
- ⑨ Up Illawarra Local line (Central–Sutherland)
- ⑩ Down Local line (Central–Lidcombe)
- ⑪ Up Local line (Central–Lidcombe)
- ⑫ Down Suburban line (Central–Lidcombe)
- ⑬ Up Suburban line (Central–Lidcombe)
- ⑭ Down Main line (Central–Lidcombe)
- ⑮ Up Main line (Central–Lidcombe)
- ⑯ Up Main line (Sydney Terminal)
- ⑰ Down Main line (Sydney Terminal)
- ⑱ Down Suburban [Yard] line (Sydney Terminal)
- ⑲ Up Suburban [Yard] line (Sydney Terminal)
- ⑳ Down Shore line
- ㉑ Down City Outer line (City Circle)
- ㉒ Up Shore line
- ㉓ Up City Inner line (City Circle)
- ㉔ Down Eastern Suburbs Railway (ESR) line (Erskineville–Bondi Junction)
- ㉕ Up ESR line (Erskineville–Bondi Junction)






## Central–Hornsby

### Diagram








### Location details

#### Town Hall 1.092km

-  0.563km Network access
-  0.563km Goulburn Street portal
-  1.092km Town Hall. Platforms 4, 5 and 6, 1 and 2, 3
-  Up ESR line
-  Down ESR line

#### Wynyard 1.964km

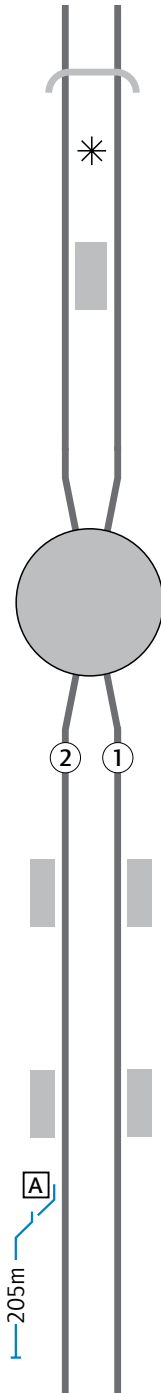
-  1.964km Wynyard. Platforms 5 and 6, 3 and 4
-  2.043km Local control panel
-  612 Up Shore line to Down Shore line (see Special Instructions)
-  Down City Outer line
-  Up City Inner line



## Central–Hornsby

*Diagram*

*Location details*



- ☐ 2.824km Argyle Street portal
- \* 2.824km Sydney Harbour Bridge
- ! See Special instructions
- 4.350km Milsons Point. Platform 1 and 2

**North Sydney 5.090km** (NLA 306)



- ① Down Shore line
- ② Up Shore line
- ! See Special instructions

- 7.094km Wollstonecraft. Platforms 1, 2

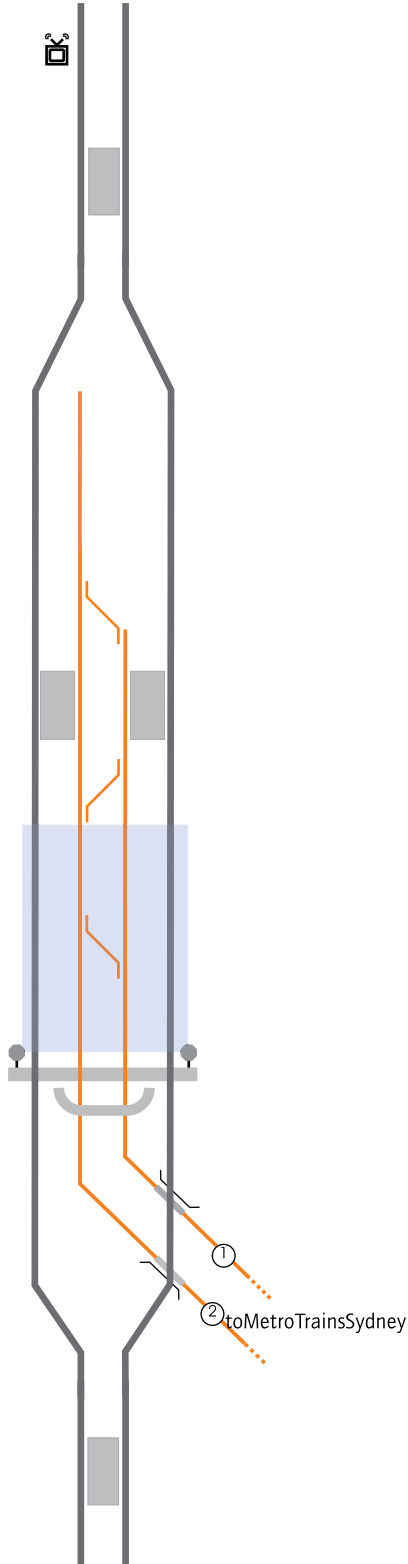
**St Leonards 8.373km**



- 8.373km St Leonards. Platforms 1, 2
- ☐ A 8.573km Up siding to Up Shore line: key from releasing switch A, released by track-circuit
- ! Signals set at STOP by taking the release: Up automatics SH6.02, SH5.60 and SH5.40
- ! See Special instructions


# Central–Hornsby

*Diagram*









*Location details*

 9.875km Pantograph Condition Monitoring System reports to Mechanical Controller at RMC  
 See Special Instructions

 10.206km Artarmon. Platform 1 and 2

**Chatswood 11.570km**

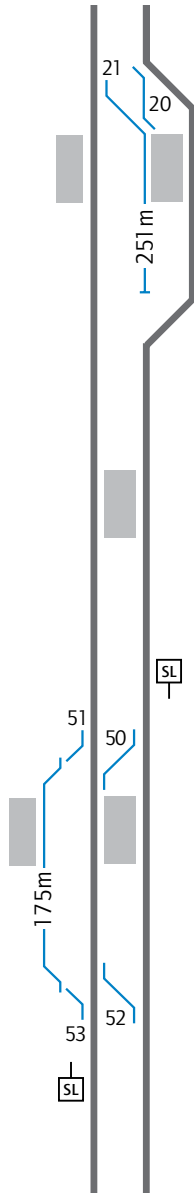


-  Controlled from Rail Operations Centre (ROC)
-  11.570km Chatswood. Platforms 1 and 2, 3 and 4
-  11.931km Rail Enclosed Structure (RES)
-  12.170km Network access
-  12.600km Chatswood portal
-  ① Down Metro Trains Sydney
-  ② Up Metro Trains Sydney

 13.223km Roseville. Platform 1 and 2

# Central–Hornsby

*Diagram*



*Location details*

**Lindfield 14.590km**



- ! Controlled from Rail Operations Centre (ROC)
- [YL] 14.053km Down signal LD1
- [EYL] 14.210km Up signal SH8.82
- 20- Down Shore line to Local Platform road
- 21- Local Platform road to Up Shore line
- █ 14.590km Lindfield. Platforms 1, 2 and 3
- [EYL] 14.779km Down signal SH9.15
- [YL] 14.913km Up signal LD8

- █ 15.810km Killara. Platform 1 and 2

**Gordon 17.112km**

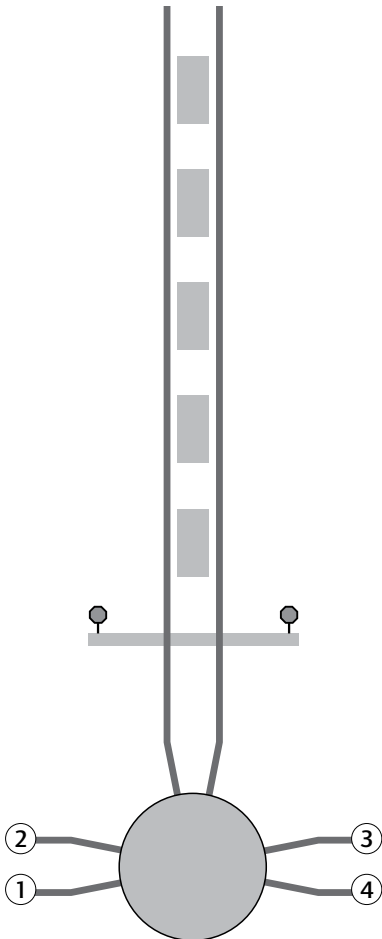


- ! Controlled from Rail Operations Centre (ROC)
- [YL] 15.992km Down signal GN1
- [SL] 16.611km Up SHUNT LIMIT sign on Down Shore line
- [EYL] 16.639km Up signal SH10.46
- 50- Down Shore line to Up Shore line
- 51- Local Platform road to Up Shore line
- █ 17.112km Gordon. Platforms 1, 2 and 3
- 52- Down Shore line to Up Shore line
- 53- Local Platform road to Up Shore line
- [SL] 17.625km Down SHUNT LIMIT sign on Up Shore line
- [EYL] 17.699km Down signal SH10.99
- [YL] 18.128km Up signal GN24

## Central–Hornsby

### Diagram

### Location details



- 18.821km Pymble. Platform 1 and 2
- 20.738km Turramurra. Platform 1 and 2
- 21.809km Warrawee. Platform 1 and 2
- 22.694km Wahroonga. Platform 1 and 2
- 24.129km Waitara. Platform 1 and 2
- 24.725km Network access

### Hornsby 33.704km (NLA 302)



- ① Down Main North line (Hornsby–Gosford)
- ② Up Main North line (Hornsby–Gosford)
- ③ Up Main North line (Strathfield–Hornsby)
- ④ Down Main North line (Strathfield–Hornsby)

### Special instructions

#### City underground

##### Fires

Fires in the city underground must be reported to the Electrical System Operator. FIRE telephones are located in tunnels and at Town Hall and Wynyard stations.

##### Road/rail access

Road/rail access is available to the Down Shore line at the Goulburn Street portal, from the gate on the Pitt Street side.

##### Signal emergency control buttons

Some automatic signals in the city underground and on the North Shore line have emergency control buttons to set the signals at STOP.

Emergency control buttons can be used to set signals at STOP to protect work on track.

## Central–Hornsby

### Non-stopping rail traffic

If rail traffic is to transit the City Circle line without stopping, the Driver or track vehicle operator must:

- slow vehicles to a maximum of 10km/h before arriving at a platform, and
- pass the platform at no more than 15km/h, and
- sound the whistle at the departure end of the platform before increasing speed.

### Unsignalled movements

If unsignalled movements need to be made in the city underground:

- the local control panel at Wynyard must be switched out, and
- headlights must be switched on between stations.

Multi-unit trains must not be propelled. If necessary, two trains must be amalgamated.

If a locomotive-hauled train is to propel, the route for the entire movement must be set and unoccupied.

### Sydney Harbour Bridge

#### Rail Corridor security enclosure

Staff must attend a Sydney Harbour Bridge Induction to work on the bridge.

Between Argyle Street portal and Milsons Point station, a security enclosure is installed along the entire length of the bridge between the cycleway and the Rail Corridor.

The enclosure has an elevated walkway along the approach spans, and refuges on the main span.

An electronically controlled infrared detection system also monitors access to the bridge from the Argyle Street portal.

Ladders and electronically controlled gates allow access to the cycleway every 100 metres, while yellow steps provide access from the track to the walkway every 15 metres.

Access to the Rail Corridor is via these gates on the cycleway or Argyle Street portal.

An RMS Sydney Harbour Bridge Electronic Access Card is needed, and permission must be obtained from the Sydney Harbour Bridge Security room.

Only staff inducted and issued with an access card may enter the secure areas of the bridge.

A BREAK GLASS PANEL, located next to each gate in the Rail Corridor, enables emergency exit to the cycleway. Activation of the BREAK GLASS PANEL releases lockers containing stairs, and triggers an alarm in the Sydney Harbour Bridge Security room. Sydney Harbour Bridge Security will remotely release other gates and lockers.

Emergency evacuation stairs are stored in lockers on either side of the gates, and train to track ladders are installed along the bridge to enable evacuation of passengers from the Rail Corridor to the cycleway in the case of a train emergency.

### St Leonards Up siding

#### Work on track

When work on track is to be carried out in the Up siding, the procedures below must be followed.



## Central–Hornsby

### Authorisation

Only the Network Controller may authorise work on track in the Up siding.

### Protection Officer

Make sure that rail traffic within the siding will not move without authorisation.

Tell the Network Control Officer:

- your name and contact details, and
- give the name of the siding and ground frame designation, and
- the type of work to be done, and
- the intention to clip the relevant points, and
- the intended start and finish times
- when applicable, that rail traffic within the siding will not move without authority.

### Network Control Officer

Make sure that rail traffic not associated with the work, is not scheduled to enter the siding during the work on track times.

### Signaller

Ask the Network Controller for permission to allow work on track to commence.

### Network Controller

When the above conditions have been met, authorise the work on track to commence.

### Signaller


When authorised, advise the Protection Officer to commence work.

### Network Controller and Signaller

Record, in permanent form, all information about the authorisation of work on track in the siding.

### Protection Officer

When permission is received to allow work on track to commence:

- clip and lock the points to prevent unauthorised rail traffic access to the siding.
-  **WARNING:** Work within the sidings must not commence until the points have been clipped and locked.

### Returning the siding to service

#### Protection Officer

Make sure that:

- all equipment is clear of the line
- all workers have cleared the worksite
- the line is certified fit for service
- the point clip and SL lock has been removed, then
- tell the Network Control Officer that the work is completed, and about any restrictions on track use.

## Central–Hornsby

### Protecting work on the Up Shore line

As the Signaller is not able to provide protection from rail traffic which has the potential to access a worksite between the siding and North Sydney, when the siding is occupied the Protection Officer must secure the points in the normal position for all work on track methods that do not include the siding before work commences.

### Chatswood

Fires at Chatswood must be reported to the Electrical System Operator.

Two types of trackside telephones are installed between the country end of the platforms and the country end of the Rail Enclosed Structure (RES):

- red FIRE telephones give direct contact to the Network Controller
- blue emergency telephones give direct contact to the Signaller.

If Signallers receive a report of a fire on the blue emergency telephone, they must tell the Network Controller.

The Network Controller must tell the Electrical System Operator about fires at Chatswood.


### Pantograph Condition Monitoring System (PCMS)

The PCMS installed on structure MH 9 + 876 MUST be isolated as per Safe Work Instruction DSYD2016/34982 prior to any work under possessions and OHW infrastructure work between MH 9 + 845 and MH 9 + 900 on the South line. Contact Electrical Operating Centre (ICON Electrical) on 02 9379 4911 for advice.

### Maintenance Window Local Possession Authority (LPA)

During Maintenance Window LPA's (MW34C, MW50 and MW51), a worksite may be established within 500 metres of the LPA limit for maintenance activities, inspections and testing if:

- a set of points can be secured to prevent access to the portion of track, or
- a Work On Track Authority adjoining the LPA limit is authorised, or
- Lookout Working is established in accordance with NWT 310 *Lookout Working*.

 **WARNING:** Worksites with associated rail traffic must not be established within 500 metres of an LPA limit unless a TOA adjoining the LPA limit has been authorised.

Points that are clipped and locked to protect a Maintenance Window LPA may be unclipped in accordance with NSG 616 *Precautions during signalling equipment testing*.

## Central–Hornsby

### Establishing Worksites using Lookouts and Warning Lights as a Safety measure

Worksites using Lookouts and Warning lights as a safety measure may be established on the Up and Down Shore from (Goulburn St Portal to Argyle St Portal inclusive).

These worksites must not be established if rail traffic that does not reliably operate track circuits is operating.

Any established worksite using Lookouts and Warning lights as a safety measure must be cleared prior to allowing rail traffic that does not reliably operate track circuits to enter the affected area.

If the Protection Officer for an established Lookout Working worksite cannot be contacted to gain an assurance that the worksite can be cleared, the Driver or Track Vehicle Operator of Rail Traffic that does not reliably operate track circuits must be issued with a written Condition Affecting the Network (CAN) Warning that includes;

- the location of the worksite,
- the requirement for the Driver or Track Vehicle Operator to travel with headlights switched on between platforms, and,
- Rail Traffic must not exceed 10km/h through the worksite location.

Warning lights must not be used where a minimum warning time of more than 20 seconds is required.

### Wynyard 612AB Points

#### Spring Wing Crossings

For operations using the turnout road (reverse direction):

- Trains can operate as per speed boards without restrictions
- High Rail Vehicles must NOT exceed a maximum speed of 5kph. A qualified worker is required to assist and advise the operator / driver during such movements.
- Minimum weight of vehicles using the turnout road is 1.5T GVM
- During operations the spring wing must NOT be chocked, forced or manually opened/operated

Further detail on maintenance and operations requirements for Wynyard 612AB spring wing crossings are outlined in Engineering Advice EA T 18/02.

## Central–Hornsby

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### Related documents

- NLA 100 Central*
  - NLA 102 Sydney Terminal*
  - NLA 104 City Circle*
  - NLA 106 Erskineville–Bondi Junction*
  - NLA 110 Central–Lidcombe*
  - NLA 112 Eveleigh*
  - NLA 300 Strathfield–Hornsby*
  - NLA 302 Hornsby*
  - NLA 306 North Sydney*
  - NLA 308 Chatswood–Epping*
  - NLA 310 Hornsby–Gosford*
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### Effective date

28 July 2019