

<b>Document no.</b>	<b>Scope of work</b>	
D2020/22561	Track inspections on 51, 52 and 53 points at Berowra	
<b>WPP no.</b>	<b>Description of work</b>	
CN1BC 10002	<p>This SWI is only applicable for the worksite protection arrangements of the routine track inspections performed by the City North Civil team for Berowra. Work activities include:</p> <ul style="list-style-type: none"> <li>Civil track inspections and measurements</li> <li>Points inspections and measurements</li> </ul>	
<b>Review date</b>	<b>References</b>	
29/09/2020	<p>NWT 300 Planning work in the Rail Corridor  NWT 310 Lookout Working  NWT 314 Absolute Signal Blocking  NPR 703 Using Absolute Signal Blocking  NPR 711 Using Lookouts  NPR 751 Calculating Minimum Warning Time  NPR 712 Protecting work from rail traffic on adjacent lines  Lookout Working Prohibited Locations Register</p>	
<b>Competencies or qualifications</b>		<b>Licences or permits required</b>
<b>Protection Officer:</b> Protection Officer Level 1 or higher <b>Lookout:</b> Handsignaller Level 1 or higher, Protection Officer Level 1 or higher.		<b>[site inductions]:</b>
<b>Tools and equipment required</b>		
Protection Officer requires a phone to contact the Signaller. Lookout requires high-visibility arm sleeve and 2 horns		

**Warning**

The worksite protection arrangements below are the minimum required during daytime inspections in fine weather and with good visibility. Before conducting a track inspection, the Protection Officer must assess the need for additional protection for the exact scope of work and the prevailing conditions.

<b>Protection arrangements</b>	<p>The work uses the Lookout Working and Absolute Signal Blocking work on track methods simultaneously. The work is a moving worksite where track is visually inspected as workers move along the track. The Signaller for the work is at Hornsby North Panel (ph 02 9701 1513). The work starts and 51 points at Berowra, and finishes at 53 points at Berowra. Access to the worksite is via gate <b>N00 44.735 U</b> on Berowra Parade.</p>
<b>Lookout Working</b>	<p>Lookout Working on the <b>Up Main</b> line is at a fixed worksite location at 52 points. A Lookout is placed on Berowra Platform 1 at <b>44.636km</b> for Up direction rail traffic on the Up Main. Workers must move into a safe place if the ASB suspended.</p>
<b>Absolute Signal Blocking (ASB)</b>	<p>Absolute Signal Blocking on the <b>Down Main and Refuge Loop</b> is at a fixed worksite location from <b>B3 Signal and 28.5 Signal</b>. The worksite is protected by:</p> <ul style="list-style-type: none"> <li><b>B1 Signal and B3 Signal</b> at STOP with blocking facilities applied on the <b>Down Main</b></li> <li><b>B5 Signal</b> at STOP with blocking facilities applied and <b>52 points</b> to prevent access to the worksite. On the <b>Up Main</b></li> </ul>

Protection Officer assessment checklist		
Protection Officer's name:		<b>Yes</b> (Tick if Yes)
On-site safety assessment has been completed		
The required protection details, environment and tasks are unchanged from the details of this SWI		
SWI details and protection arrangements have been reviewed and validated for the assessed worksite location.		
Corridor Safety Number	Protection Officer Signature	Date

**Warning**

*If an above item does not apply, the Protection Officer must not use this Safe Work Instruction. A new worksite protection plan must be completed in accordance to NRF 014 Worksite Protection Pre-work briefing and NRF 015 Worksite Protection Plan.*

**Worksite Protection Pre-work Briefing**Briefing date:  /  / **Protection Officer Details**

<input type="text"/> name	<input type="text"/> signature	<input type="text"/> contact No.
---------------------------	--------------------------------	----------------------------------

Work location: Scope of work: Worksite protection:  Refer to Worksite Protection Plan for details

Hazards (e.g. Site specific hazards identified, including physical environment, human errors, plant and equipment)	Controls (to be implemented to eliminate or reduce the risk to the lowest practicable level)	Person responsible for Control
<b>Struck by rail traffic</b>	ASB & Lookout Working implemented. Workers to remain within worksite limits.	Protection Officer
<b>Adjacent live lines</b>	Designated work and walk areas as per Protection Officer's instructions. All work is to stop and workers moved to a safe place when warned by Lookout and/ or Protection Officer.	Protection Officer
<b>Multiple entry points into worksite</b>	ASB implemented	Protection Officer
<b>Obstruction to Minimum Sighting Distance</b>	Lookouts are to provide warning to the workers whenever the Minimum Sighting Distance is obstructed by passing rail traffic or passengers on the platform. Workers are to stop work and move to a safe place.  Lookouts must confirm with Protection Officers when the Minimum Sighting Distance is regained.	Protection Officer & Lookout
<b>Adjoining/Surrounding Worksites</b>	Lookouts must have two independent audible warning devices that can be heard by workers over any noise generated by adjoining/surrounding worksites.  Lookouts are to provide warning if their line of sight is obstructed by adjoining/surrounding worksites.	Protection Officer & Lookout
<b>Electrical infrastructure</b>	Electrical infrastructure is to be treated as live and workers must maintain a safe approach distance as instructed by the Protection Officer or Workplace Supervisor.	Protection Officer & Workplace Supervisor
<b>Access to / Egress from worksite</b>	Protection Officer will assess and instruct when it is safe for workers to use NGE 200 Walking in the Danger Zone to move to the worksite or safe place.	All
<b>Mobile phone distraction</b>	Mobile phone usage is not allowed in the Danger Zone.  Mobile phones may be used only in a safe place after informing the Protection Officer.	All

### Workplace Supervisor Details

name		contact No.	
Emergency assembly point:		SWMS/SWI Ref #:	
First aid kit location:		First Aider:	

## Workplace Supervisor Acknowledgement

The Workplace Supervisor acknowledges that all identified WHS and rail safety hazards have the appropriate controls in place to manage and/or eliminate the hazards.

Yes ☐

signature

## Participant Acknowledgement

**NOTE:** Recipients of the briefing are to question the Briefer if they don't understand any part of this briefing.

All workers listed below acknowledge that they:

- |   |   |
|---|---|
| 1. have been inducted to the site   | 5. have been briefed on the contents of the Worksite Protection Plan  |
| 2. are free from the effects of alcohol/drugs/fatigue   | 6. have been shown the Worksite Protection Plan diagram   |
| 3. hold the applicable and current Rail Safety Worker Authorisation, trade licence and/or induction record e.g. Construction Industry Induction | 7. understand the kinds and limits of worksite protection in place  |
| 4. wear the appropriate Personal Protective Equipment (PPE)   | 8. have been briefed about any new hazards and controls identified during the final site inspection ( <i>final site inspection must be conducted immediately before commencing work</i> ) |

Mark each check box below with a tick ☒ if the item applies or a cross ☐ if the item does not apply.

- |  |   |
|--|---|
| <input type="checkbox"/> have been informed of the requirements of the electrical permit (if required) | <input type="checkbox"/> have been made aware of any hazardous materials/substances on site |
| <input type="checkbox"/> have been briefed on the SWMS/SWIs/documented safe work practice for the job  | <input type="checkbox"/> have been briefed on Safety Data Sheets (SDS)                      |
| <input type="checkbox"/> have been instructed in the controls recorded in this document and SWMS/SWIs  | <input type="checkbox"/> have been briefed on the WHS Management plan                       |
|  | <input type="checkbox"/> have been briefed on the hazards of adjoining worksites/processes. |

[illegible]

**Worksite Protection Plan – Lookout Working****Signaller Details**

name	<b>Hornsby North Panel</b>	<b>02 9701 1513</b>
------	----------------------------	---------------------

**Protection Officer Details**

name	signature	contact No.
RSW or RIW No.	designation	Planned duration

Workplace Supervisor details: Type of work: **Inspections of 52A Points****Worksite Location**

On the	<b>Up Main</b>	
between	<b>B8 Signal</b>	and <b>B5 Signal</b>

**Worksite Assessment**Has the Lookout Working Prohibited Locations Register been consulted? Yes ☐**Warning method**

<b>Horn</b>	<b>Other</b>
-------------	--------------

**Minimum Warning Time Calculations**Maximum track speed **90**Number of Lookouts used **1** Position of Lookouts **44.636 km** to **44.636 km**Number of additional Lookouts\* used  Position of Lookouts  km  km

2 sec	+	3 sec	+	10 sec	= Minimum Warning Time (MWT)	15 sec	90 km/h	375 metres
sec	+	sec	+	10 sec		sec	km/h	metres
sec	+	sec	+	10 sec		sec	km/h	metres
See Time (S)		Move Time (M)		Safe Time	(S+M+10 sec = MWT)		Track speed	Minimum Sighting Distance as calculated

\* Add an additional 5 seconds of See Time if an additional Lookout is used

**Note** – Additional MWT calculations can be recorded in the Protection Officer's Diary.**Where are the safe places identified for the Lookouts and the workers?**Lookouts: **Berowra Platform 1**Workers: **Up Cess, ASB on the Down Main**Ensure the workers have been briefed about these work details Yes ☐

This worksite protection plan is to be used in conjunction with the worksite protection plan for ASB on the following page. The work is performed on 52 points and Lookout Working is only established once the ASB protection arrangements are implemented.

Diagrams, notes and detailed instructions are over the next pages. These are to be read and followed as part of this worksite protection plan for Lookout Working and ASB.

**Worksite Protection Plan – Absolute Signal Blocking****1. ASB Request – Protection Officer Details**

name	signature	contact No.
RSW or RIW No.	designation	Planned Duration

Type of work: **Inspections of 51 Points, 52B Points and 53 Points****2. Worksite Location**

On the	<b>Down Main and Down Passing Loop</b>	
from	<b>B3 Signal</b>	and <b>28.5 Signal</b>

**3. Protection to be used**

Signal(s) at STOP with blocking facilities applied	Points secured
--	----------------

Where practicable, tell the Signaller the signal(s) or points you have identified to protect the work ☐ Yes ☐ NAProtection is required from other Signallers(s) at  Location / panel  Location / panel**4. Assurances**All points of entry into the affected portion of track are protected and blocking facilities applied ☐The last rail traffic to pass the protection was  rail traffic ID The last known location of rail traffic is  locationConfirm that there is no rail traffic between the protection and the worksite ☐**5. Authorisation – Authorised by Signaller**

name	Location / panel	hr	/	/
------	------------------	----	---	---

Protection Number  Notes **B1, B3 and B5 Signals at stop, 52 Points secured to prevent access to the worksite****6. Temporarily Suspending ASB**

Provide the name and worksite location <input type="checkbox"/>	Provide the name and worksite location <input type="checkbox"/>	Provide the name and worksite location <input type="checkbox"/>
Workers and equipment are clear of the Danger Zone <input type="checkbox"/>	Workers and equipment are clear of the Danger Zone <input type="checkbox"/>	Workers and equipment are clear of the Danger Zone <input type="checkbox"/>
Provide protection number <input type="checkbox"/>	Provide protection number <input type="checkbox"/>	Provide protection number <input type="checkbox"/>
ASB suspended at <input type="text"/> hr	ASB suspended at <input type="text"/> hr	ASB suspended at <input type="text"/> hr

**7. Re-establish ASB assurances**

The worksite location is identical <input type="checkbox"/>	The worksite location is identical <input type="checkbox"/>	The worksite location is identical <input type="checkbox"/>
All points of entry into the affected portion of track are protected and blocking facilities applied <input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied <input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied <input type="checkbox"/>
The last rail traffic to pass the protection was <input type="text"/> rail traffic ID	The last rail traffic to pass the protection was <input type="text"/> rail traffic ID	The last rail traffic to pass the protection was <input type="text"/> rail traffic ID
The last known location of rail traffic is <input type="text"/> location	The last known location of rail traffic is <input type="text"/> location	The last known location of rail traffic is <input type="text"/> location
There is no approaching rail traffic between the protection and the worksite <input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite <input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite <input type="checkbox"/>
ASB re-established at <input type="text"/> hr	ASB re-established at <input type="text"/> hr	ASB re-established at <input type="text"/> hr
Protection Number <input type="text"/>	Protection Number <input type="text"/>	Protection Number <input type="text"/>

**8. Ending**Provide name and worksite location ☐ Workers and equipment clear of the Danger Zone ☐ Provide protection number ☐ Ended at  hr

**6. Temporarily Suspending ASB**

Provide the name and worksite location	<input type="checkbox"/>	Provide the name and worksite location	<input type="checkbox"/>	Provide the name and worksite location	<input type="checkbox"/>
Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>	Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>	Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>
Provide protection number	<input type="checkbox"/>	Provide protection number	<input type="checkbox"/>	Provide protection number	<input type="checkbox"/>
ASB suspended at	<input type="text"/> hr	ASB suspended at	<input type="text"/> hr	ASB suspended at	<input type="text"/> hr

**7. Re-establish ASB assurances**

The worksite location is identical	<input type="checkbox"/>	The worksite location is identical	<input type="checkbox"/>	The worksite location is identical	<input type="checkbox"/>
All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>
The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID	The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID	The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID
The last known location of rail traffic is	<input type="text"/> location	The last known location of rail traffic is	<input type="text"/> location	The last known location of rail traffic is	<input type="text"/> location
There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>
ASB re-established at	<input type="text"/> hr	ASB re-established at	<input type="text"/> hr	ASB re-established at	<input type="text"/> hr
Protection Number	<input type="text"/>	Protection Number	<input type="text"/>	Protection Number	<input type="text"/>

Notes

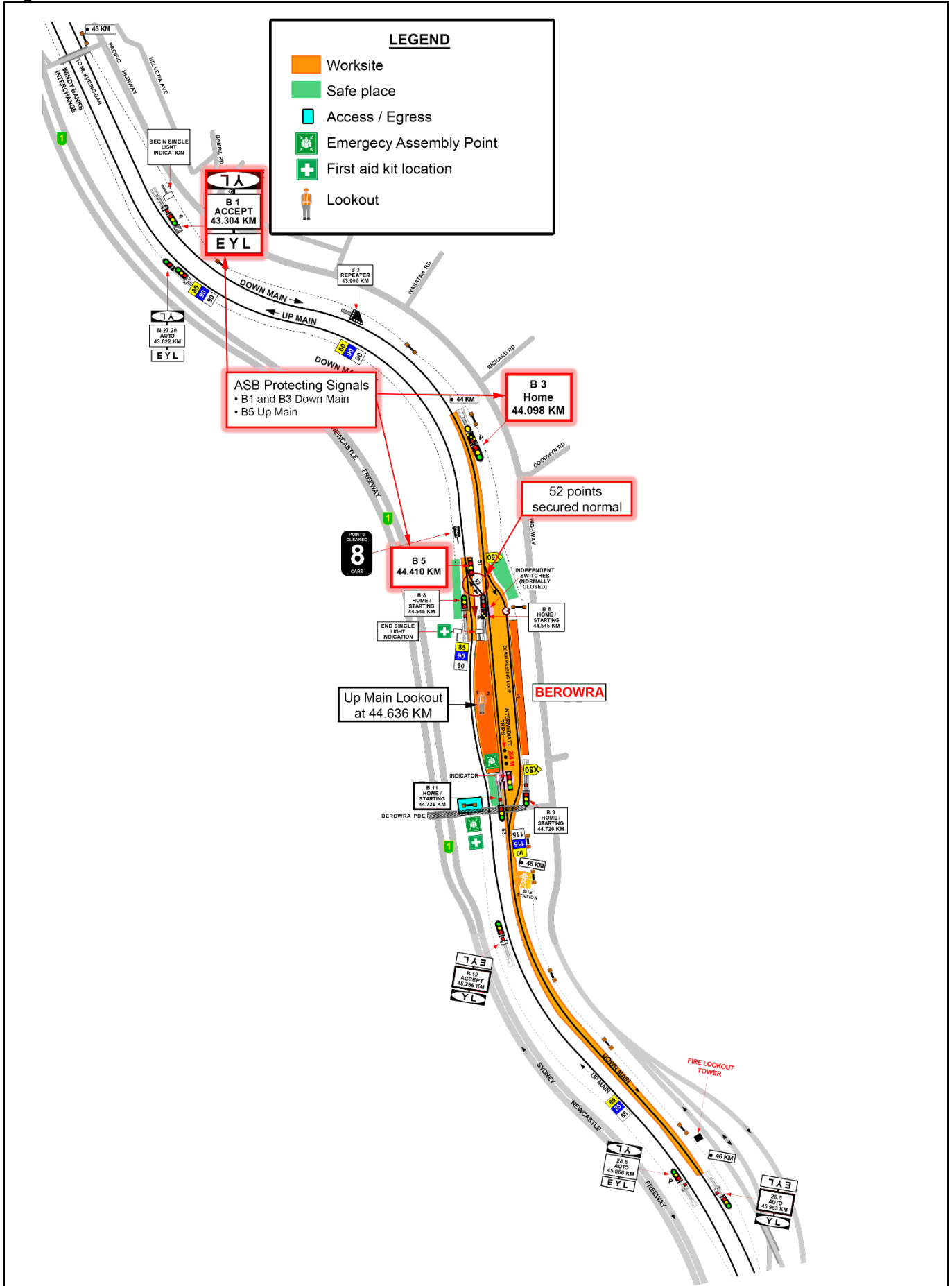
**6. Temporarily Suspending ASB**

Provide the name and worksite location	<input type="checkbox"/>	Provide the name and worksite location	<input type="checkbox"/>	Provide the name and worksite location	<input type="checkbox"/>
Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>	Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>	Workers and equipment are clear of the Danger Zone	<input type="checkbox"/>
Provide protection number	<input type="checkbox"/>	Provide protection number	<input type="checkbox"/>	Provide protection number	<input type="checkbox"/>
ASB suspended at	<input type="text"/> hr	ASB suspended at	<input type="text"/> hr	ASB suspended at	<input type="text"/> hr

**7. Re-establish ASB assurances**

The worksite location is identical	<input type="checkbox"/>	The worksite location is identical	<input type="checkbox"/>	The worksite location is identical	<input type="checkbox"/>
All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>	All points of entry into the affected portion of track are protected and blocking facilities applied	<input type="checkbox"/>
The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID	The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID	The last rail traffic to pass the protection was	<input type="text"/> rail traffic ID
The last known location of rail traffic is	<input type="text"/> location	The last known location of rail traffic is	<input type="text"/> location	The last known location of rail traffic is	<input type="text"/> location
There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>	There is no approaching rail traffic between the protection and the worksite	<input type="checkbox"/>
ASB re-established at	<input type="text"/> hr	ASB re-established at	<input type="text"/> hr	ASB re-established at	<input type="text"/> hr
Protection Number	<input type="text"/>	Protection Number	<input type="text"/>	Protection Number	<input type="text"/>

### Diagram – Berowra





<b>Protection arrangements and working timeline</b>	<ol style="list-style-type: none"> <li>Workers enter corridor via gate N00 44.735 U on Berowra Parade.</li> <li>Protection Officer briefs workers about the worksite protection arrangements.</li> <li>Workers remain in Up Cess safe place until Protection Officer informs all protection is in place.</li> <li>Establish Lookout on Berowra Platform 1 at 44.636 KM watching for Up Main rail traffic approach.</li> <li>Protection Officer contacts Hornsby North Panel and tells the Signaller about the use of Lookout Working at Berowra on the Up Main line and requests ASB on the Down Main and Down Passing Loop.</li> <li>Once ASB has been authorised, workers start work on 51 points on the Down Main line.</li> <li>When work on 51 points is complete, workers move and start work on 52 points on the Up and Down Main line.</li> <li>When work on 52 points is complete, the Lookout for the Up Main line is recalled and work is to continue on the Down Main and Down Relief line until reaching 53 points.</li> <li>Workers move to safe place once work is complete on 53 points.</li> <li>Protection Officer contacts Hornsby North Panel to end ASB and Lookout Working.</li> </ol>
<b>Safeworking hazards</b>	<p>Rail traffic that enters platform 2 on the Down Main line may travel onto the Up Main line through 52 points. The ASB may be suspended for an extended period of time because of this.</p> <p>Environmental noise from Sydney Newcastle Freeway may impede certain audible warning devices. The Lookout must use two horns as individual warning devices.</p> <p>Passengers on Berowra Platform 1 may impede the Lookout's Minimum Sighting Distance. Lookouts must provide warning to the worksite if Minimum Sighting Distance cannot be achieved. Lookouts must confirm with the Protection Officer when Minimum Sighting Distance is regained.</p>
<b>Lookout</b>	<div data-bbox="331 1014 895 1760" data-label="Image"> </div> <p><b>Image 1:</b> Position of Lookout on the Up Main at 44.636KM</p> <div data-bbox="919 1014 1485 1760" data-label="Image"> </div> <p><b>Image 2:</b> View from the Lookout</p>



Worksite



Image 4: B5 at stop and 52 points secured normal



Image 5: 53 points

