

DOCUMENT NO.	D2021/24412
WORK DESCRIPTION	Routine network inspection – Asquith to Hornsby
WPP Number	CN2B 10001
SCOPE:	<p>This SWI is applicable for the worksite protection arrangements using Lookout working and Absolute Signal Blocking concerning routine network maintenance, defect management and repair of assets within the limits specified below and in the attached plan.</p> <p>Work activities include:</p> <ul style="list-style-type: none"> Routine preventative and corrective work such as inspections and maintenance as appropriate for the type of protection being applied as part of this plan
AUTHORISATIONS:	<p>Protection Officer: Protection Officer Level 1 or higher</p> <p>Lookout: Hand signaller Level 1 or higher, Protection Officer Level 1 or higher.</p>
SAFETY CONTROLS – Lookout Working arrangements:	<p>The nominated worksite location for Lookout Working includes the Up Main North, Down Main North, Down Relief and No.1 Turnback Road from HY138 Signal to HY17 Signal.</p> <p>The nominated worksite location for Lookout Working is a moving worksite, where workers are working along the track within the limits of the nominated worksite location up to where the Lookout is established.</p> <p>As work moves along the track, the Protection Officer must assess the new location and:</p> <ul style="list-style-type: none"> Establish Lookouts as required to watch for approaching rail traffic from all entry points. Designate and instruct which safe places the workers are to use as the work is completed along the work route within the worksite limits.
Absolute Signal Blocking (ASB) arrangements:	<p>Absolute Signal Blocking on the Down Main is at a fixed worksite location from HY 17 Signal to HY 25 Signal.</p> <p><i>For reference only.</i></p> <p>The worksite is protected by:</p> <ul style="list-style-type: none"> HY 13, HY 17 Signal at STOP with blocking facilities applied.
PRESTART REQUIREMENTS:	<p>Protection Officer assessment checklist must be completed before instructions in this SWI are followed.</p> <p>Tools and equipment required:</p> <ul style="list-style-type: none"> Protection Officer requires a phone to contact the Signaller. Lookouts require a high-visibility arm sleeve and a whistle / horn.
FURTHER INFORMATION:	<p><i>NWT 300 Planning work in the Rail Corridor</i></p> <p><i>NWT 310 Lookout Working</i></p> <p><i>NPR 711 Using Lookouts</i></p> <p><i>NPR 751 Calculating Minimum Warning Time</i></p> <p><i>NLA 302 Hornsby</i></p> <p><i>NGE 200 Walking in the Danger Zone</i></p> <p><i>Lookout Working Prohibited Locations Register</i></p> <p><i>NWT 308 Absolute Signal Blocking NPR 703 Using Absolute Signal Blocking</i></p>

Protection Officer assessment checklist

Protection Officer's name:		Yes <i>(Tick if Yes)</i>
This document has not expired 12 months beyond the issue date.		
SWI details and protection arrangements have been reviewed and validated for the assessed worksite location, including: <ul style="list-style-type: none"> On-site safety assessment has been completed for relevancy of works being undertaken. The required protection details, environment and tasks are unchanged from the details of this SWI. 		
The Protection Officer and Qualified Workers deploying qualifications are current and have practiced in the last 6 months. If not practiced, then a Rail Safety Coach must be contacted for guidance.		
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 with NRF 014 Worksite Protection Pre-work briefing and NRF 015 Worksite Protection Plan.

Safe Work Instruction

Worksite Protection for Asquith to Hornsby routine network maintenance activities



Worksite Protection Pre-work Briefing

Briefing date:

Protection Officer details

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
<ul style="list-style-type: none"> Approaching rail traffic 	Lookouts must be trained and competent to perform Lookout duties. Lookouts must be rotated if performing Lookout for extended periods of time. Workers to remain within worksite limits as set out in this procedure. Lookouts must be placed as per protection plan on page 8. Workers are to stop work and move to a safe place immediately on being warned by the Lookouts	Protection Officer and Lookout
<ul style="list-style-type: none"> Approaching rail traffic (ASB) 	ASB implemented. Lookouts and workers must be in a safe place before ending Lookout Working and before establishing ASB.	Protection Officer
<ul style="list-style-type: none"> Live adjacent lines 	Lookouts must provide warning to workers when rail traffic is approaching from the adjacent line in either direction.	Protection Officer and Lookout
Two - way running / multiple entry points into worksite	One Lookout placed watching each direction before work starts. Lookouts are to warn workers of approaching rail traffic, including rail traffic entering or travelling within the worksite. Workers are to stop work and move to a safe place.	Protection Officer and Lookout
Obstruction to Minimum Sighting Distance	Lookouts must provide warning to the workers whenever their line of sight is obstructed by passing rail traffic. Workers must stop work and move to a safe place and reassess positioning and method	Protection Officer and Lookout
Adjoining/Surrounding Worksites	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 and Lookout
Access to / Egress from worksite Slips, trips, falls and hazards carrying equipment.	Access and egress points must be agreed prior to entering the Danger Zone, consideration should be given to ease of access and safest possible entry and exit points. Protection Officer will assess and instruct when it is safe for workers to use <i>NGE 200 Walking in the Danger Zone</i> to move to the worksite or safe place.	All
Mobile phone	Mobile phones use is not permitted in the Danger Zone unless being used by maintenance staff for critical maintenance communications or recording of defects.	All

Safe Work Instruction

Worksite Protection for Asquith to Hornsby routine network maintenance activities



Workplace Supervisor details

<input type="text" value="name"/>		<input type="text" value="contact No."/>	
Emergency assembly point:	<input type="text" value="Access Gate"/>	SWMS/SWI Ref #:	<input type="text"/>
First aid kit location:	<input type="text" value="Sydney Trains work vehicle"/>	First aider:	<input type="text"/>

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

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 | 6. have been briefed on the contents of the Worksite Protection Plan |
| 2. are free from alcohol and drugs | 7. have been shown the Worksite Protection Plan diagram |
| 3. are free from the effects of fatigue | 8. understand the kinds and limits of worksite protection in place |
| 4. hold the applicable and current Rail Safety Worker Authorisation, trade licence and/or induction record e.g. Construction Industry Induction | 9. 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>) |
| 5. must wear the appropriate Personal Protective Equipment (PPE) | |

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. |

Name	Signature	Time of briefing: hh:mm	Amendment briefing: hh:mm and initial

Safe Work Instruction

Worksite Protection for Asquith to Hornsby routine network maintenance activities



Worksite Protection Plan – Lookout Working

Signaller details

Protection Officer details

Planned duration

Workplace Supervisor details:

Type of work:

Worksite location

On the

between and

Worksite Assessment

Has the Lookout Working Prohibited Locations been consulted? Yes

Warning method

Minimum Warning Time Calculations

Maximum track speed

Number of Lookouts used Position of Lookouts to

Number of additional Lookouts* used Position of Lookouts to

Note - Lookouts are relocated to positions within these KMs as workers move along the worksite.

2 sec	+	3 sec	+	10 sec	= Minimum Warning Time (MWT)	15 sec	115km/h	479 metres
2 sec	+	3 sec	+	10 sec		15 sec	100km/h	417 metres
2 sec	+	3 sec	+	10 sec		15 sec	80km/h	333 metres
2 sec	+	3 sec	+	10 sec		15 sec	60km/h	250 metres
7 sec	+	3 sec	+	10 sec		20 sec	80km/h	444 metres
See Time (S)		Move Time (M)		Safe Time	(S+M+10 sec = MWT)	Track speed		Minimum Sighting Distance as calculated

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:

Workers:

Ensure the workers have been briefed about these work details Yes

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.

Safe Work Instruction

Worksite Protection for Asquith to Hornsby routine network maintenance activities



Worksite Protection Plan – Absolute Signal Blocking

1. ASB Request – Protection Officer Details

<input type="text"/> name	<input type="text"/> signature	<input type="text"/> contact No.
<input type="text"/> RSW or RIW No.	<input type="text"/> designation	Planned Duration <input type="text"/>
Type of work: <input type="text"/>		

2. Worksite Location

On the	<input type="text"/> Down Main	from	<input type="text"/> HY 25 Signal	to	<input type="text"/> HY 17
On the	<input type="text"/> Down Relief	from	<input type="text"/> HY 23 Signal	to	<input type="text"/> HY 17

3. Protection to be used

<input type="text"/> Signal(s) at STOP with blocking facilities applied	<input type="text"/> Points secured
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Protection 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 location

Confirm that there is no rail traffic between the protection and the worksite

5. Authorisation

Authorised by Signaller name Hornsby Main Panel hr / /

Protection Number 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"/>

8. Ending

Provide name and worksite location Workers and equipment clear of the Danger Zone Provide protection number Ended at hr

Section 1 - Asquith to Hornsby

LOOKOUT WORKING INSTRUCTIONS:	<ol style="list-style-type: none"> 1. Protection Officer briefs workers about the worksite protection arrangements. 2. Protection Officer contacts Hornsby Main Panel and tells the Signaller about the use of Lookout Working between Asquith and Hornsby on the Up Main North, Down Main North, Down Relief and No.1 Turnback Road. 3. Workers enter rail corridor via gate N00 35.231 D on Fuller Avenue, at Asquith Station carpark located on the downside. 4. Protection Officer establishes Lookouts watching for rail traffic approach from both directions at designated locations. 5. Workers start work on the Up Main, Down Main, Down Relief and No.1 Turnback Road up to the designated Lookout locations. 6. Workers move to a safe place. 7. Repeat steps 4 - 6 until workers reach Hornsby Station. 8. Recall Lookouts. 9. All workers move to a safe place and egress onto Hornsby Station.
ASB INSTRUCTIONS:	<ol style="list-style-type: none"> 1. Protection Officer ends Lookout working and implements ASB to complete scope of work. 2. Protection Officer briefs workers about the worksite protection arrangements. 3. Protection Officer contacts the Signaler at Hornsby Main Panel to request ASB. 4. After ASB has been authorized, start work within the limits of the nominated worksite location. 5. After work is complete, workers move to a safe place. 6. Protection Officer contacts the Signaler at Hornsby Main Panel to end ASB. 7. All workers egress the rail corridor via Access Gate at Hornsby
ADDITIONAL DETAILS	<p><u>Two-way running</u> Hornsby Yard is a two-way running area; rail traffic movements can occur in any direction at any time. On the Up Main, rail traffic can enter from multiple directions between 573 points and 501 points. Rail traffic can also enter from multiple directions between 574 points and 500 points on the Down Main, Down Relief and No.1 Turnback Road.</p> <p>A Lookout is placed for each direction of rail traffic approach and must provide warning for any rail traffic approach. Workers must move into a safe place upon a Lookout providing warning regardless of which line the rail traffic is approaching on.</p> <p><u>Obstruction to Lookout’s Minimum Sighting Distance</u> Rail traffic coming to and from Hornsby Maintenance Centre on the Car Shed Roads may obstruct the Lookout’s Minimum Sighting Distance for a short portion of the work. Rail traffic on the Up Main may also obstruct the Lookout’s Minimum Sighting Distance for down approaching rail traffic. Stabled rail traffic on No.1 Turnback Road in Hornsby Yard may obstruct the Lookout’s Minimum Sighting Distance from rail traffic approaching on the Down Relief.</p> <p style="color: red;">Lookouts must provide warning to workers when Minimum Sighting Distance is obstructed by rail traffic on adjacent lines. All workers must remain in a safe place until Lookouts re-established Minimum Sighting Distance.</p> <p><u>No safe place within platform limits</u> Workers must not enter the Danger Zone within the limits of any platforms at Hornsby Station.</p>

ACCESS/EGRESS



Image 1: Access Gate N00 35.231 D into rail corridor from Asquith Car Park



Image 2: Egress gate from rail corridor onto country end of Hornsby Station Platform 4

LOOKOUTS



Image 3: Lookout in Down Cess near 574 points looking for approaching rail traffic from the Down direction

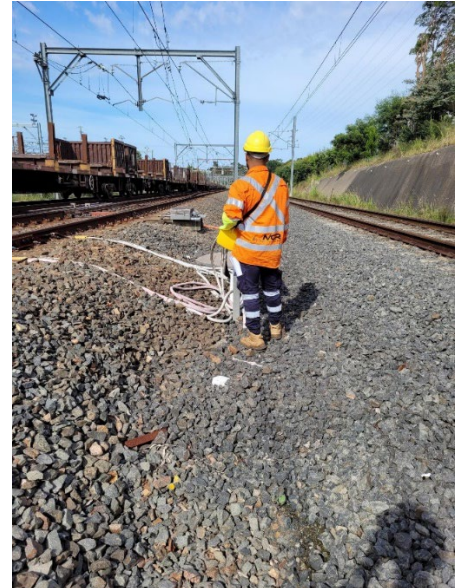


Image 4: Lookout in 6-Foot between Down Main and Down Relief looking for approaching rail traffic from the Down direction



Image 5: View of Lookout for rail traffic approach from the Up direction coming from Asquith and Hornsby Maintenance Centre



Image 6: Lookout in Down Cess near 569 Points for rail traffic approach from Hornsby Yard

Section 2 – Hornsby Station Platform 4 to HY 17 Signal

INSTRUCTIONS:	<ol style="list-style-type: none"> 1. Protection Officer, Lookouts and workers re-enter the rail corridor via the city end of Hornsby Station Platform 4. 2. Protection Officer places Lookouts watching for rail traffic approach from both directions at designated locations. 3. Workers start work on the Up Main, Down Main and Down Relief, working up to the designated Lookout locations. 4. Workers move to a safe place. 5. Repeat steps 3 – 5 until workers complete work between HY 21 Signal and Hornsby Station is complete. 6. Once work is complete, all workers move into a safe place. 7. Protection Officer recalls Lookouts. 8. Protection Officer contacts the Signaller at Hornsby Main Panel to end Lookout Working.
ADDITIONAL DETAILS	<p><u>Two-way running</u> Hornsby Yard is a two-way running area; rail traffic movements can occur in any direction at any time. On the Up Main, rail traffic can enter from multiple directions between 573 points and 501 points. Rail traffic can also enter from multiple directions between 574 points and 500 points on the Down Main, Down Relief.</p> <p>A Lookout is placed for each direction of rail traffic approach and provide warning for any rail traffic approach. Workers must move into a safe place upon a Lookout providing warning regardless of which line the rail traffic is approaching on.</p> <p><u>Obstruction to Lookout’s Minimum Sighting Distance</u> Rail traffic on the Up Main will obstruct the Lookout’s Minimum Sighting Distance for down approaching rail traffic as they approach 500 points.</p> <p style="color: red;">Lookouts must provide warning to workers when Minimum Sighting Distance is obstructed by rail traffic on adjacent lines. All workers must remain in a safe place until Lookouts regain Minimum Sighting Distance.</p> <p><u>Lookout Working Prohibited Location</u> Lookout Working is prohibited beyond HY 17 Signal towards Normanhurst on all tracks. Workers must not perform work beyond this point towards Normanhurst.</p>

LOOKOUTS

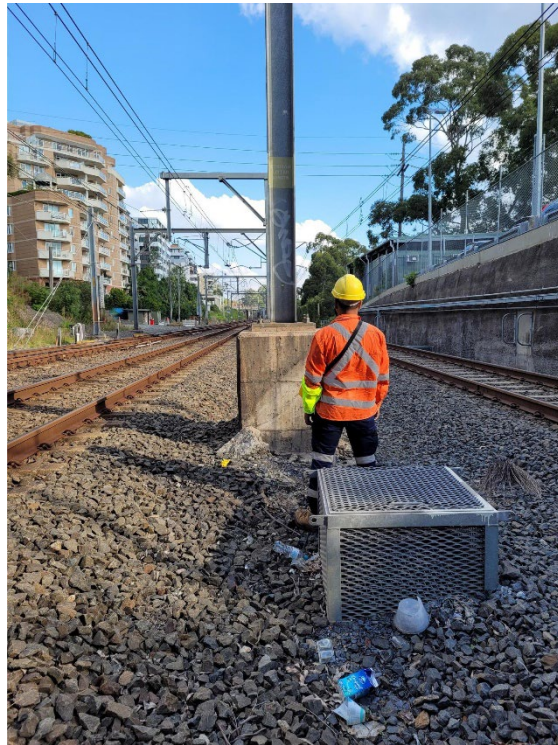


Image 7: Lookout in 6-Foot between **Down Main** and **Down Relief** for approaching rail traffic from the Down direction.



Image 8: Lookout in Up Cess for approaching rail traffic from the Up direction.

ACCESS/EGRESS

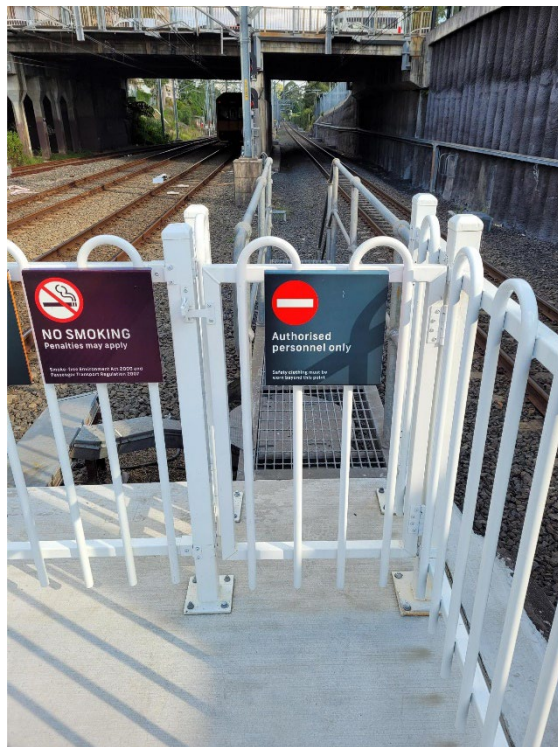


Image 9: Access gate to rail corridor at City end of **Hornsby Platform 4**



Image 10: Egress gate **37.722 U** from rail corridor via College Crescent after works complete

Diagram – Section 1

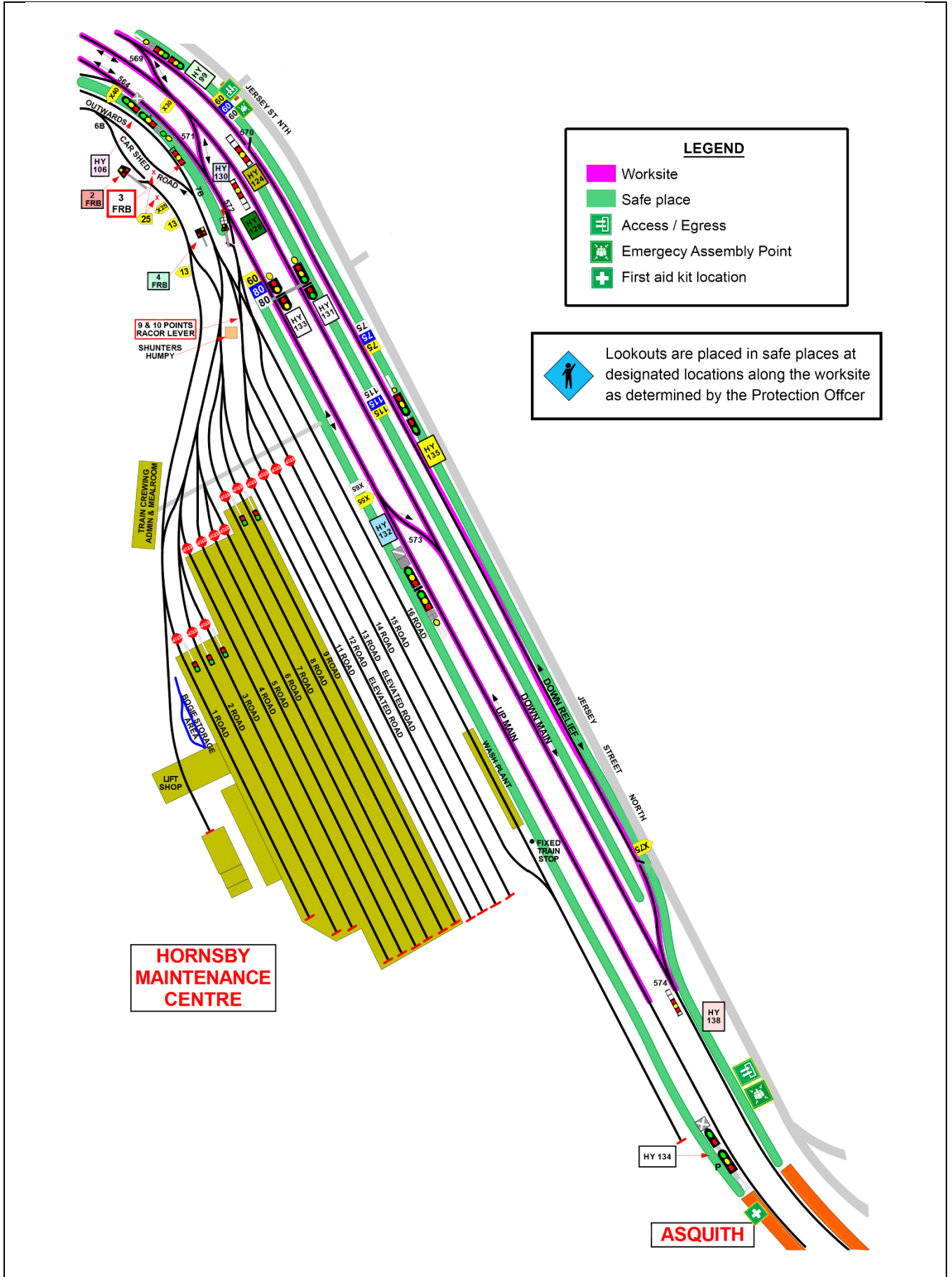


Diagram – Section 1 cont. and Section 2 Lookout Working

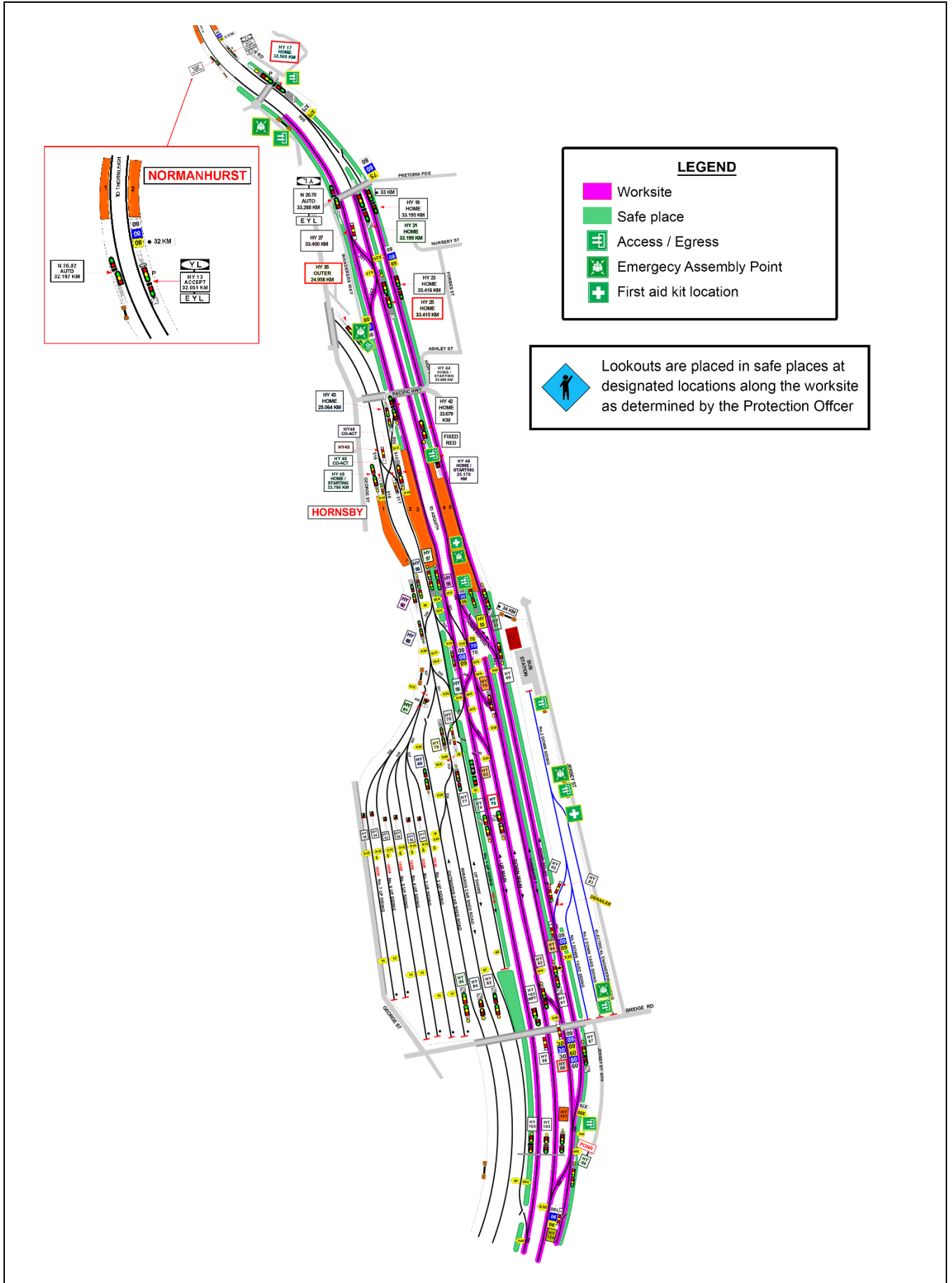


Diagram – Section 1 ASB

