

ATWS Worksite Protection for Glenfield routine network maintenance activities

WORK DESCRIPTION	Routine Maintenance activities
WPP NUMBER	SW11BWS 10081
SCOPE	<p>Routine maintenance activities performed by network maintenance team.</p> <ul style="list-style-type: none"> on the Down East Hills line between 31.485 km to 41.201 km that does not involve the use of tools or equipment, or using tools which can be easily and immediately removed from the track by one person and are light, non-powered hand tools, or light battery powered tools or devices.
AUTHORISATIONS	<p>Protection Officer, ATWS Operator (Operator) & ATWS Installer (Installer):</p> <ul style="list-style-type: none"> Protection Officer (PO) Level 1 – 4, and WATWS – Wireless Automatic Track Warning System <p>Dedicated Lookout: (PO) Level 1 - 4, or Handsignaller 1 - 2</p>
PERSONAL PROTECTIVE EQUIPMENT	<ul style="list-style-type: none"> High visibility vest, boots, high visibility lookout sleeve
SAFETY CONTROLS – Lookout Working (ATWS) arrangements:	<ul style="list-style-type: none"> Automatic Track Warning System (ATWS) - provides visual and audible warning for workers ATWS sensor for down direction running on the line at 30.113 km Dedicated lookout(s) at the worksite for un-signalled movements. <p>IMPORTANT!</p> <ul style="list-style-type: none"> This document must not be used to install or adjust the ATWS sensors All sensors in the plan and shown on the diagram must be connected to transmit a warning
PRESTART REQUIREMENTS:	<ul style="list-style-type: none"> Refer to D2015/45354 Wireless ATWS (Automatic Track Warning System) to install or remove sensors
FURTHER INFORMATION:	<p>Refer to “D2015-45354 Wireless ATWS (Automatic Track Warning System)” for detailed instructions to set-up, connect, test and operate the ATWS system with pre-installed ATWS sensors</p> <ul style="list-style-type: none"> NLA 500 Lidcombe to Campbelltown

Required ATWS Equipment		
Item	Description	Quantity
Aerial	Telescopic Aerial	2
Assembly Kit	Orange Bag with Tools	1
Battery ZA24-2.9	Small battery for Junction Box & Transmitter	4
Device Frame	Protective Frame	2
F500-AB Junction Box	Receiver Device	1
F500-SEN Train Sensor	Sensor	1
Housing for Aerial	Housing for Telescopic Aerial	2
KF5-5 Extension Cable	Extension Cable (5m) for F500-SEN to F500-AB	0
Mobile Backpack	Harness for Device	1
Pouch	Pouch for small battery	2
Tripod	Tripod for Device	2
ZFS Radio Transmitter	Radio Transmitter Device	1
ZPW Warning Unit	Control & Warning Device	1

Protection Officer/Operator assessment checklist		
Protection Officer's name:		Yes (Tick if Yes)
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 undertakenThe required protection details, environment and tasks are unchanged from the details of this SWIAll boxes have been ticked if applicable and crossed if not applicableAll fields have been completed		
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.

Worksite Protection Pre-work Briefing

Briefing date:

/ /

Protection Officer details

name

signature

contact no.

Work location:

Scope of work:

Routine network maintenance activities

Worksite protection:

Lookout Working (ATWS)

Refer to Worksite Protection Plan for details

Hazards (e.g. environment, plant, equipment, human error)	Controls (to be implemented to eliminate or reduce the risk to the lowest practicable level)	Person responsible for Control
Crossing live lines	A qualified Protection Officer (PO) or Access Corridor Safety (ACS) must make a safety assessment to cross live lines in accordance with NGE200 and supervise workers who do not hold the PO or ACS qualification.	Qualified PO/ ACS
Accessing Danger Zone to conduct plate test	Use appropriate safety measures as validated by a PO. Refer to diagram for minimum safety assessment.	Qualified PO
Electricity	ATWS antennae not to encroach safe approach distance to overhead wiring	Operator
Slips, trips, falls carrying ATWS equipment	Use correct manual handling techniques, secure safety boots, clear obstacles for work area and agree a safe path.	All
Approaching rail traffic	<ul style="list-style-type: none"> Lookout Working using approved ATWS as assessed in the plan & diagram. All points of entry have been validated and ATWS safety measures (sensors) have been installed. Confirm with the Operator that the ATWS has been tested and is operational. Workers immediately move to the designated safe place when warned. Provide ALL CLEAR hand signal after workers and equipment are in a safe place. After the warning has been cancelled, confirm there is no approaching rail traffic between the sensors and the worksite before allowing work to resume. 	PO
Ineffective ATWS warnings / Adjoining / surrounding worksites	<ul style="list-style-type: none"> Test and confirm workers can see and hear the warning in the noisiest environment. Explain the emergency warnings. Workers to be within 50m of warning device. Workers to remain within sight and hearing of warning unit at all times. Radios not to be used near ATWS. 	PO
Train warning time longer than expected (stopping points or ATWS equipment fault)	<ul style="list-style-type: none"> Workers to remain in a safe place until confirmed the ATWS is working correctly. Contact the Signaller or visually confirm the line is clear between the sensors and the worksite. 	PO
Adjacent live lines	Remain within the tracks being protected by the ATWS	PO
Un-signalled movements in Yard limits	<ul style="list-style-type: none"> Position lookout(s) in safe place. Confirm minimum sighting distance can be achieved. Test effective communication and be within sight and hearing of the workers. 	PO / lookouts
Second train warning cancelled in error	<ul style="list-style-type: none"> Nominate a team member to confirm with the Operator when each rail traffic has completely passed the worksite. Tell the PO and workers about the second train warning. Cancel each warning after each train has completely passed the worksite. 	Operator / nominated team member
Distraction	Obtain permission from PO to use electronic devices in the Danger Zone.	All
Obstructions to safe place	Agree on paths to reach designated safe places from the worksite.	PO
Electrical storms	Stop work immediately	All

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A final site inspection has been conducted immediately before commencing work, and any new hazards and controls have been included.

name	signature	contact No.
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Participant acknowledgement

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

	Glenfield Panel	02 8568 3442
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Protection Officer details

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

Workplace Supervisor details:

Type of work: **Routine Maintenance Activities****Worksite location**

on the	Down East Hills line		<input type="checkbox"/>
between	EH 19.19 Auto Signal	and	GD11 Signal

Worksite assessment

The Lookout Working Prohibited Locations Register been consulted? Yes "

Warning method**ATWS****Whistle / Horn****Minimum Warning Time Calculations**

Maximum track speed

115 km/h

Number of ATWS Sensors used

1

Position of ATWS Sensors

30.113 km

and

639 meters km

Number of dedicated Lookouts used

1

Position of Lookouts

31.485 km

To

41.201 km

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

7 sec	+	3 sec	+	10 sec	= Minimum Warning Time (MWT)	20 sec	115 km/h	639 metres	Down East Hills line
<i>See Time (S)</i>		<i>Move Time (M)</i>		<i>Safe Time</i>	<i>(S+M+10 sec = MWT)</i>		<i>Track speed</i>	<i>Minimum Sighting Distance as calculated</i>	

Dedicated Lookout

2 sec	+	3 sec	+	10 sec	= Minimum Warning Time (MWT)	15 sec	25 km/h	105 metres
<i>See Time (S)</i>		<i>Move Time (M)</i>		<i>Safe Time</i>	<i>(S+M+10 sec = MWT)</i>		<i>Track speed</i>	<i>Minimum Sighting Distance as calculated</i>

Where are the safe places identified for the ATWS Operator, Lookouts and workers?

Lookouts:

Down Cess

Workers:

Down Cess**Confirm mandatory first train tests were completed for all sensors**Yes ☐**Ensure the workers have been briefed about these work details**Yes ☐

NOTE: Diagrams and instructions that follow form part of this worksite protection plan

Diagram



INSTRUCTIONS:	1. Workers enter the rail corridor via access gate M25 30.049 U 2. Use assets to validate worksite location on Down East hills lines between 31.485 km to 41.201 km 3. Conduct WP Pre-work briefing to set-up ATWS. 4. Tell Signaller at Glenfield Panel about the use of lookout working with ATWS.
Tick if used <input type="checkbox"/>	5. Access Up Cess 31.113 km, verify sensor label & connect to sensor cable, calibrate with test plate, connect and turn on the transmitter.
	6. Place warning system on same side of tracks if working on one track only within sight & hearing of workers, conduct siren & light self test, & connect to transmitter(s). 7. Record first rail traffic movement test for each sensor on ATWS Check-sheet. 8. Conduct WP Pre-work briefing for lookout working with ATWS and confirm workers have seen and heard the warning. 9. Start work when advised by the PO and move to the designated safe place when warned. 10. When work is complete, and workers and equipment are in a safe place, turn off and pack up warning unit
Tick if used <input type="checkbox"/>	11. Access Up Cess to turn off and pack up transmitter unit(s).
Tick if used <input type="checkbox"/>	12. Access Up Cess to turn off and pack up transmitter unit(s).
	13. Access Down Cess for all workers to leave the rail corridor via access gate M25 32.191 D 14. Tell Signaller at Glenfield Panel when work is completed and the workers and their equipment are clear of the Danger Zone.

Tick if used ☐ **Position of ATWS transmitter and sensor on Down East Hill line 30.113 KM**



Image 1: Transmitter and sensor installation location



Image 2: Sensor access using access gate **M25 30.049 U**

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