Worksite Protection Guidelines

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1 Introduction

1.1 Purpose

This document provides step-by-step best practice guidelines for Protection Officers (POs), Rail Safety Coaches and other stakeholders, for implementing Worksite Protection on the Sydney Trains Network.

These guidelines may be used to assess the capability of POs carrying out their responsibilities in accordance with the Network Rules and Procedures.

1.2 Scope

The scope of this document is the core process for implementing Worksite Protection (as per Transport for New South Wales (TfNSW) Training).

Figure 1.2 Worksite Protection Core Process

1.3 Governance

The primary role of the Rail Corridor Safety team is to provide Sydney Trains with the assurance that PO capability levels are being maintained (refer Figure 1.3 below).

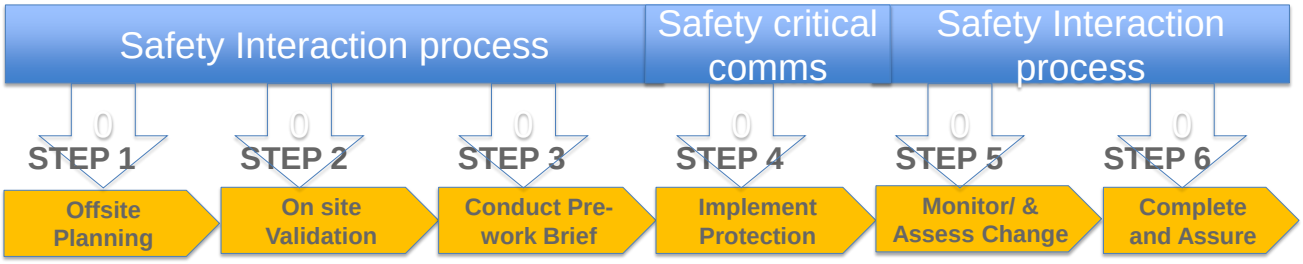


Figure 1.3 Governance of the Implementing Worksite Protection process

PO capability monitoring is achieved by conducting periodic checks with POs and assessing their performance against pre-determined checklists.

The checklists are used to identify areas of improvement which are then remedied by one-on-one coaching with the POs.

1.4 Business Rules

1.4.1 Compliance to Network Rules

The Network Rules and Procedures (refer https://railsafe.org.au/) are the governing set of rules and procedures for working on the Sydney Trains Network and must always be adhered to.

These Worksite Protection Guidelines are intended to enhance the Network Rules and Procedures and how to better follow them, not to work around or replace them.

If any statement in this document is discovered to potentially conflict with a Network Rule or Procedure,

the Network Rule or Procedure shall take precedence and the matter shall be reported immediately to the Senior Manager Rail Corridor Safety for resolution.

If there is ever a conflict between safety and production, POs shall stop work and re-assess the current level of protection for adequacy. If you need further assistance, contact the local Rail Safety Coach.

1.4.2 Conditions under which Protection Officers may implement Worksite Protection

The Network Rules and Network Procedures Certification Standard prescribes:

- the competency requirements recognised by Sydney Trains to implement worksite protection on the Sydney Trains Network; and
- provides guidance on the issue, withdrawal, and cancellation of Rail Safety Worker (RSW) authorisations.

1.5 Definitions, Terms and Acronyms

Term or Acronym	Meaning
ASB	Absolute Signal Blocking
ATWS	Automated Train Warning System
CPO	Coordinating Protection Officer
CSO	Corridor Safety Officer
CSS	Corridor Safety System
CSN	Corridor Safety Number
DRKD	Drivers Route Knowledge Diagram
HS	Hand Signaller
LPA	Local Possession Authority
LW	Lookout Working
LWPLR	Lookout Working Prohibited Location Register
NLA	Network Local Appendices
PO	Protection Officer
QW	Qualified Worker
RTS	Railway Track Signals
RNMWPP	Routine Network Maintenance Worksite Protection Plan
SKS	Signal Key Switch
STN	Special Train Notice
TOA	Track Occupancy Authority
TVO	Track Vehicle Operator

TWA	Track Work Authority
WP Brief	Worksite Protection Pre–Work Brief
WP Docs	Worksite Protection Documents
WP Diagram	Worksite Protection Diagram
WP Plan	Worksite Protection Plan
WPPD	Worksite Protection Planning Diagram

Table 1.5: Definitions, Terms and Acronyms

2 Worksite Protection Core Process

2.1 Description

The Worksite Protection Core Process is aligned to the TfNSW PO training courses and can be visualised as being broken down into a series of activities.

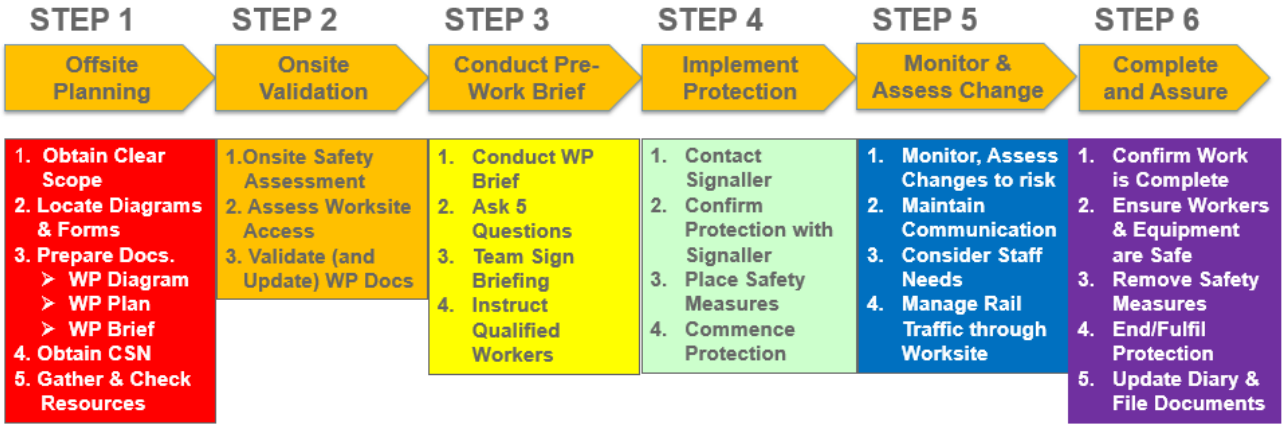


Figure 2.1 Activity view of the Worksite Protection Core Process

This document provides further explanation for these activities, together with hints and tips to implement them in accordance with Sydney Trains requirements.

2.2 Responsibilities and Accountabilities

RESPONSIBILITIES AND AUTHORITIES MATRIX FOR IMPLEMENTING PROTECTION PROCESS					
Process step	**Protection Officer**	**Signaller**	**Handsignaller**	**Workplace Supervisor**	**Workers on track**
Offsite Planning	R/A			C	
Onsite validation	R/A			C	
Conduct WP Pre-work Brief	R/A		C	C	C
Implement protection	R/A	R/A/C	R/A/C	C	C
Monitor & assess change	R/A	C	R/A/C	R/C	R/C
Complete & assure	R/A	R/A/C	C	C	I
Responsible for				R	
Accountable for				A	
Support to				S	
Communicate with				C	
Inform				I	

Figure 2.2 Responsibilities and Accountabilities matrix for the Worksite Protection Core Process

3 STEP 1 Offsite Planning

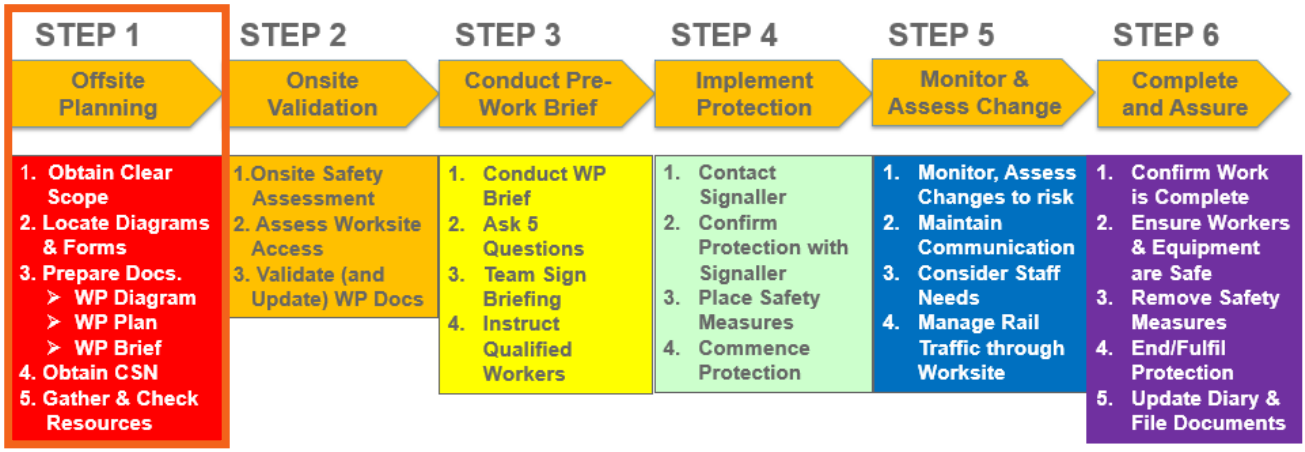


Figure 3 Activity breakdown for Offsite Planning

3.1 Obtain Clear Scope

Number	Task	Key Point	Reason
1	Obtain scope of work.	Obtain the following details from the requestor: • Type of work. • Worksite location. • Resources. e.g., No. of people, type of equipment, etc.	To have a clear understanding of the work that needs to be protected. To ensure you can pre-plan the type of worksite protection, protection equipment and workers required to protect the work team.

3.2 Locate Diagrams and Forms

Number	Task	Key Point	Reason
NOTE	The PO Online Workbook is available to complete Worksite Protection documents via RailSafe PO Portal	Login to PO Portal. Saved documents in favourites can be used at a later date.	Can be completed on an electronic device at any location. Current versions are directly linked via the Portal. Documents are automatically saved as required.
1	Obtain Worksite Protection Diagram (WP Diagram).	The following WP Diagram styles are available for use: 1. Drivers Route Knowledge Diagrams (DRKD) are best used for longer worksites (more than 1.5 km) (refer attachment 3.6.2). 2. Worksite Protection Planning Diagrams (WPPD) are best used for shorter, more complex worksites (refer attachment 3.6.3). 3. Hand drawn diagrams are acceptable provided they are legible and cover the main requirements in this guideline (refer attachment 3.6.4).	A WP Diagram helps plan for, and brief workers about, worksite protection. Selecting the right WP Diagram helps provide a clear illustration of the worksite location and aids in determining adequate protection. e.g. If one style of WP Diagram looks congested, consider using an alternative style that improves readability.
2	Obtain Worksite Protection Plan (WP Plan).	Use either a WP Plan form (Refer to NRF 015), or a RNMWPP from RailSafe (Refer to RNMWPP Library).	Forms help to implement worksite protection in a standard manner.
3	Obtain Worksite Protection Pre-Work Brief (WP Brief).	Use either a WP Brief form (Refer to NRF 014) , or a RNMWPP from RailSafe (Refer to RNMWPP Library). In situations where the PO is also the Workplace Supervisor, use NRF 014.	NRF 014 contains briefing content specifically designed for worksite protection.
4	Obtain Protection Officer's Diary.	Use NRF 017 Protection Officer's diary.	Protection Officer's diary is used to record details associated with the use of work on track authorities and methods.
5	Obtain other safeworking forms and documents.	Use an STN for an LPA. Use NRF002 TOA form when implementing TOA.	Safeworking forms and documents help to implement worksite protection in a standard manner.
6	Confirm form versions.	Confirm that versions for any pre-developed or previously downloaded forms are current.	To assist following current processes.

3.3 Prepare Worksite Protection Documents (WP Docs)

3.3.1 Worksite Protection Diagram (WP Diagram)

Number	Task	Key Point	Reason
NOTE	For a pre-developed WP Diagram, confirm worksite location and protection details.	Pre-developed WP Diagrams are often kept for use as reference or templates. Where available and appropriate, use Routine Network Maintenance Worksite Protection Plans, particularly in preference to using other pre-developed WP Diagrams. When using a pre-developed WP Diagram, it is essential to confirm: • The worksite location details match the area where the work will be conducted. • Worksite protection arrangements are appropriate for the scope of works. **NOTE:** Refer to Lookout Working Prohibited Location Register (LWPLR) when considering Lookout Working. Where details differ, update, or complete a new WP Diagram.	Workers can be exposed to risk if the arrangements based on past examples are used without proper re-assessment and validation each and every time. An error in worksite location or protection arrangements may translate to an error in protection and risk to workers.
1	Identify worksite location.	Highlight the worksite location for each line on the WP Diagram (refer attachment 3.6.1).	To identify where personnel and equipment will be located, in or near the danger zone.
2	Determine method of protection.	There are many considerations when selecting the appropriate method(s) of protection for work that has potential to intrude the danger zone. Refer to NWT 300, LWPLR, and Network Local Appendices (NLAs) to assist with selection of the appropriate method of protection for the specific work. If unsure, discuss with a Rail Safety Coach, Signaller or Network Rules Specialist.	To establish and maintain separation between rail traffic and workers.
3	Identify Key Safety Components.	Add mandatory and protection specific Key Safety Components to the WP Diagram (refer attachment 3.6.1). Include access and egress to the danger zone.	To plan for and brief workers about the hazards and controls related to the risk of workers in path of rail traffic for the work. Visual representation provides situational awareness and therefore aids the safety of workers.
4	Prepare legend.	Include a legend on the WP Diagram (refer attachment 3.6.1).	To help people understand the WP Diagram and provide consistency.

3.3.2 Worksite Protection Plan (WP Plan)

Number	Task	Key Point	Reason
NOTE	For a pre-developed WP Plan, confirm: • Scope of work details. • Worksite protection arrangements .	Pre-developed WP Plans are often kept for use as reference or templates. Where available and appropriate, use Routine Network Maintenance Worksite Protection Plans, particularly in preference to using other pre-developed WP Plans. When using a pre-developed WP Plan, it is essential to confirm: • The scope of work details (type, location and resources) match the work being performed. • Worksite protection arrangements are appropriate for the scope of works. **NOTE:** Refer to Lookout Working Prohibited Location Register (LWPLR) when considering Lookout Working). • Hazards and controls reflect the work. Where details differ, update, and initial the changes or complete a new form.	Workers can be exposed to risk if the arrangements based on past examples are used without proper re-assessment and validation each and every time. An error in worksite location or protection arrangements may translate to an error in protection and risk to workers.

Number	Task	Key Point	Reason
1	Compile WP Plan.	Use the information from the WP Diagram and the Scope of Works to fill in the details of the WP Plan. For each different method of protection refer to: • Local Possession Authority (Refer to NWT 302). • Track Work Authority (Refer to NWT 306). • Track Occupancy Authority (Refer to NWT 304). • Signal Key Switch Blocking (Refer to NWT 320). • Absolute Signal blocking (Refer to NWT 308). • Lookout Working (Refer to NWT 310). • Working in Maintenance Centres and stabling yards (Refer to NWT 300). Identifying affected Signallers for TOA: • Confirm the worksite location • Confirm the TOA limits - to cover worksite location 500m or clip &lock pts • Identify all entry points within the TOA limits • Identify where rail traffic can approach within the TOA limits • The affected Signallers are those that operate Signal Panels associated with the TOA limit assets, • Write all affected Signallers on NRF015A • Identify where rail traffic can approach the worksite in the normal running direction • The Signaller who excludes rail traffic from the worksite for the normal running direction is most likely to be issuing Signaller (To be confirmed with the Signaller) • Highlight the issuing Signaller on the WP Plan. • Contact all other Signallers to discuss placement of protection prior to requesting TOA from the issuing Signaller.	To ensure that all Rail Safety hazards and controls have been comprehensively mitigated.
2	Validate WP Plan against WP Diagram.	Ensure assessment on the WP diagram matches the WP Plan.	To develop a robust worksite safety plan.

3.3.3 Worksite Protection Pre-Work Brief (WP Brief)

Number	Task	Key Point	Reason
NOTE	For a pre-developed WP Brief, confirm: • Scope of work details. • Worksite protection arrangements. • Hazards and controls.	Pre-developed WP Briefs are often kept for use as reference or templates. Where available and appropriate, use Routine Network Maintenance Worksite Protection Plans, particularly in preference to using other pre-developed WP Briefs. When using a pre-developed WP Brief it is essential to confirm: • The scope of work details (type, location and resources) match the work being performed. • Worksite protection arrangements are appropriate for the scope of works. • Hazards and controls reflect the work. Where details differ, update, and initial the changes or complete a new form.	Workers can be exposed to risk if the arrangements based on past examples are used without proper re-assessment and validation each and every time. An error in worksite location, protection arrangements, hazards or controls may translate to an error in protection and risk to workers.
1	Compile PO & worksite protection details.	Add details for the PO, and copy the scope, location, and protection details from the WP Diagram and WP Plan.	To prepare a briefing that aligns with the WP Diagram and WP Plan.
2	List hazards & controls.	List all hazards and controls. Refer to attachment 3.6.5. e.g.: **Hazard:** Approaching rail traffic **Control:** Lookout working	To ensure that all known hazards for the specified worksite protection have been identified and controlled.

3.4 Obtain Corridor Safety Number (CSN)

Number	Task	Key Point	Reason
1	Call CSS for WP Plan review.	Obtain a CSN for: Working in Maintenance Centres & stabling yards, LW, ASB, TOA, TWA, SKS Blocking & LPA. Call ICON Corridor Safety Officer (CSO) (Phone: 8922 0002 OR 1800 444 822) • Identify name and request a CSN. • Answer scripted questions asked by the (CSO).	To confirm that mandatory fields on the WP Plan have been completed and meet standards.
2	Record CSN.	Record the CSN in the notes section of the WP Plan. e.g., CSN 140047	The CSN may be needed prior to implementing worksite protection.
3	Make corrections.	Update any corrections identified by the CSO. **NOTE:** Strike through and initial corrections.	To ensure WP documents contain correct information.

3.5 Gather and Check Resources

Number	Task	Key Point	Reason
1	Complete Resources Checklist.	Identify the quantity and types of resources that are needed to protect the worksite.	To plan and prepare for protection.
2	Gather and check resources.	Use the Resources Checklist to confirm that all relevant resources are available, and are tested, inspected or within compliance dates. (Refer to figure 3.5)	So that equipment is on hand and operational prior to arriving on site.

Transport Sydney Trains

Resources Checklist **(To be completed by PO)**

	Resource	Number required	Available & in date
Resources required	☐ Lookout/s	_____	☐
	☐ Audible warning device	_____	☐
	☐ Point clips	_____	☐
	☐ SL locks	_____	☐
	☐ Railway Track Signals	_____	☐
	☐ Worksite Protection Marker	_____	☐
	☐ Possession Protection Marker	_____	☐
	☐ Yellow Delineation Marker	_____	☐
	☐ Red / Green - flags / lights (Circle)	_____	☐
	☐ Handsignaller - Inner / Outer (Circle)	_____	☐
	☐ Radios	_____	☐
May 2021 V1.0	☐ ATWS	_____	☐

Figure 3.5 Resources Checklist

3.6 Attachments

3.6.1 Hand Drawn WP Diagram Legend

Note: PO Online Digital Workbook contains its own icons and generates a legend.

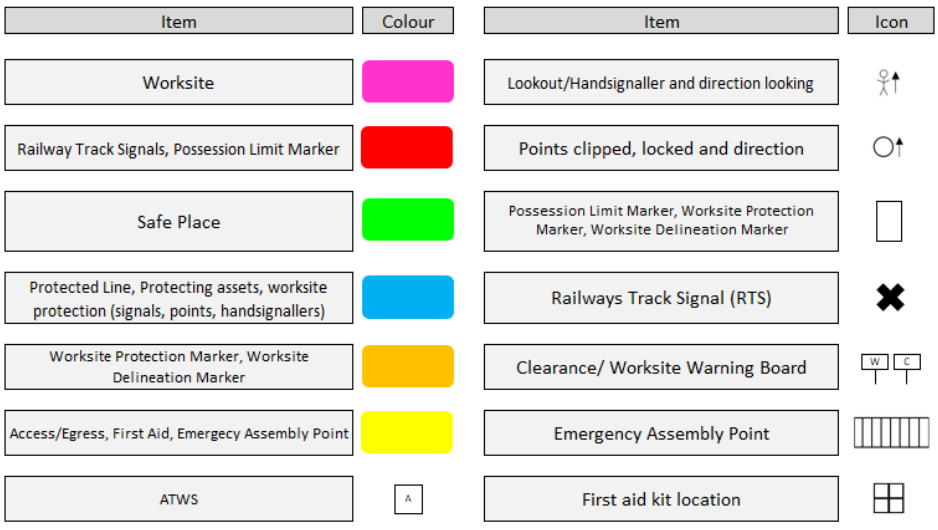
Number	Description	Detail	
1	Key safety components	Mandated items	Worksite, Safe Place, Access/Egress, Emergency Assembly Point, First Aid.
		LW	Lookout positions, direction of Lookout facing approaching rail traffic, ATWS sensor, ATWS warning unit).
		ASB	Signals, Points, Lookout positions, direction of Lookout facing approaching rail traffic.
		TOA	RTS, Worksite Protection Markers, Points, Point clips (showing direction of travel), Signals, Hi-rail direction of travel.
		TWA	Hand-signallers, RTS, Point clips (showing direction of travel), Clearance boards, Worksite warning board, Signals.
		SKS Blocking	Signal, Hand-signaller.
		LPA	Signals, RTS, Possession limit markers, Point clips (showing direction of travel), Worksite protection markers.
		Working within LPA	RTS, worksite protection markers, Delineation markers, Point clips (showing direction of travel).
		Work in Maintenance Facilities and Stabling Yards	Point clips (showing direction of travel), Signals.
2	Diagram Legend		

Figure 3.6.1 Hand Drawn WP Diagram Legend

3.6.2 Sample Drivers Route Knowledge Diagram (DRKD)

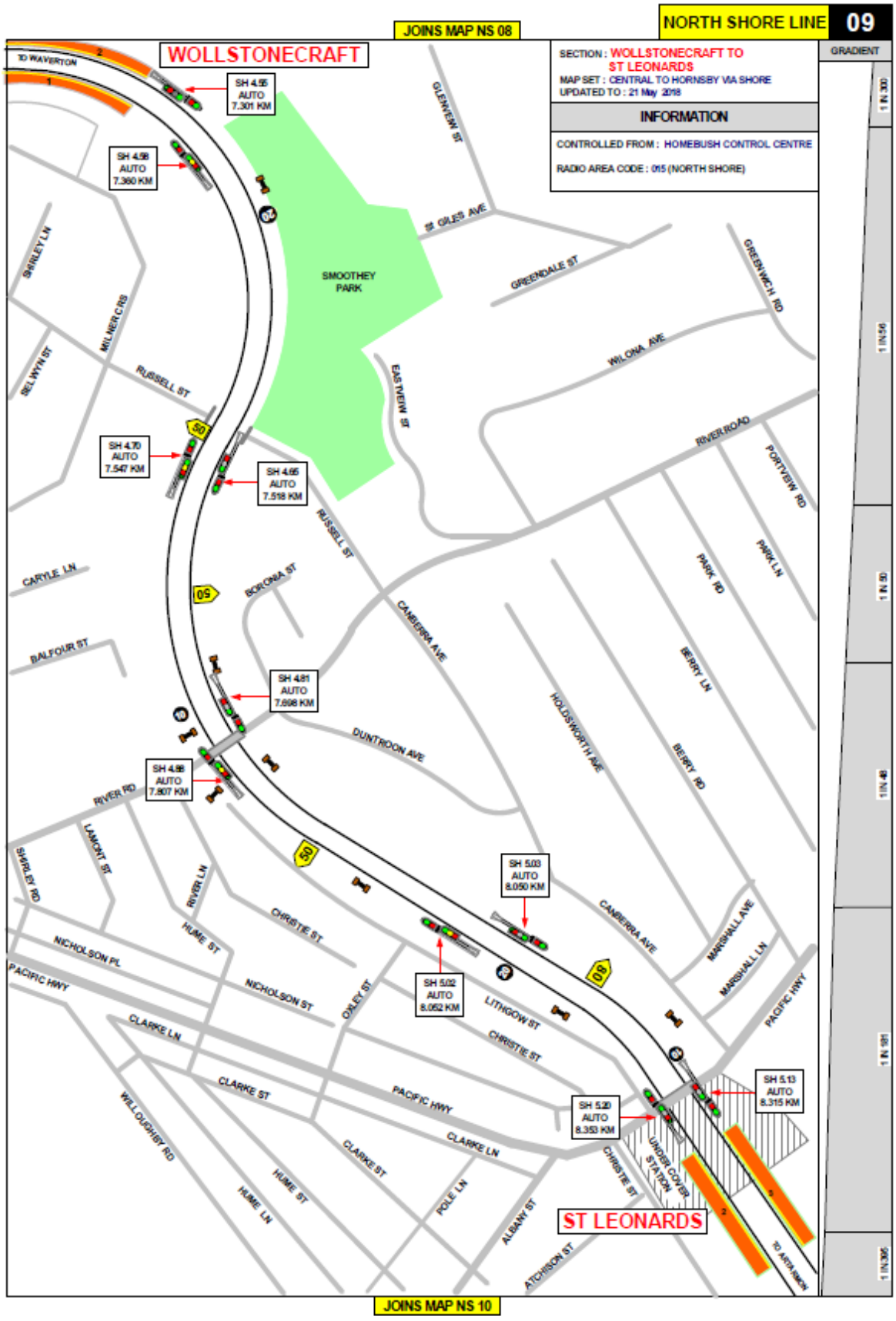


Figure 3.6.2 Sample DRKD

3.6.3 Worksite Protection Planning Diagram (WPPD)

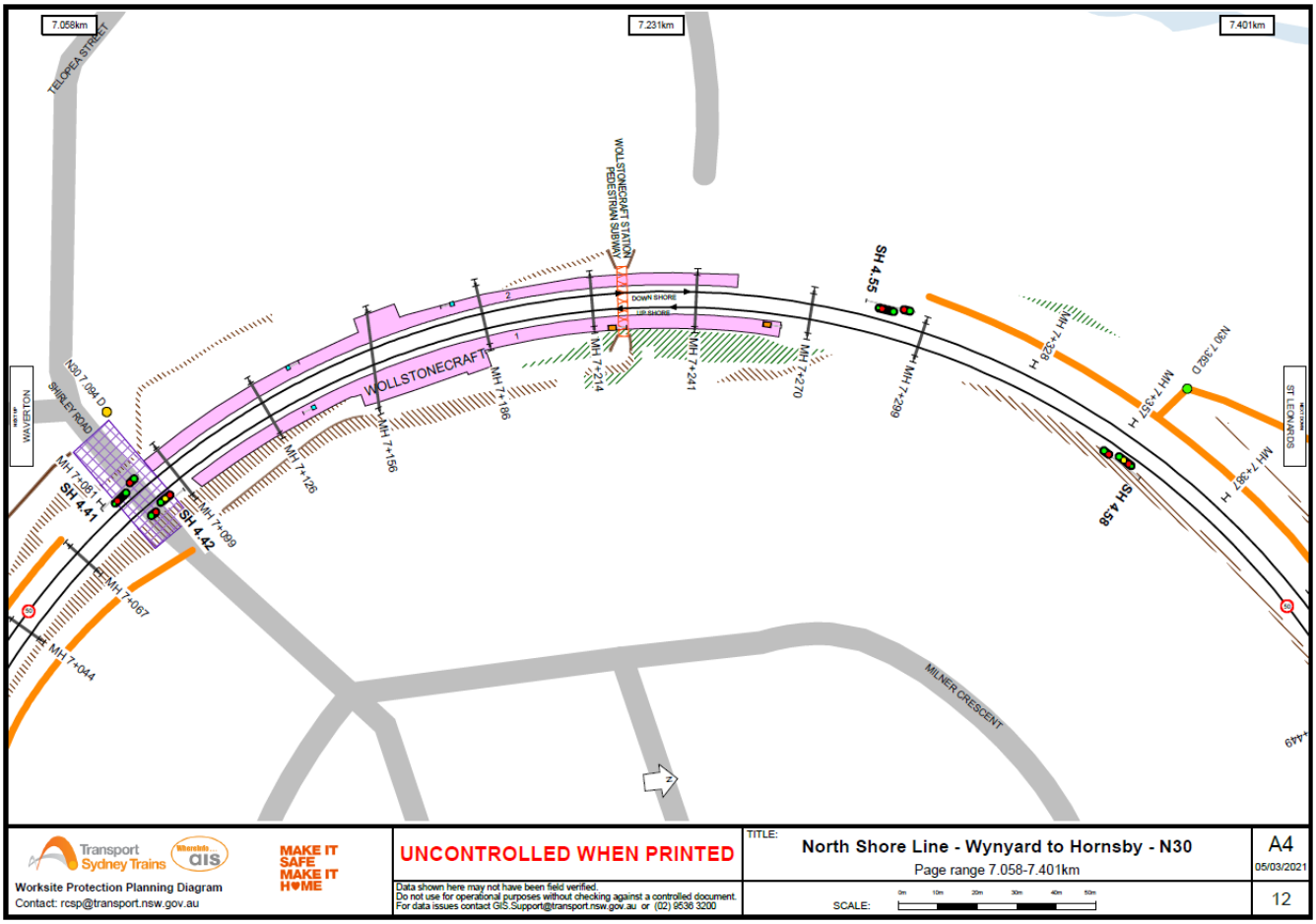


Figure 3.6.3 Sample WPPD

3.6.4 Hand Drawn Diagram

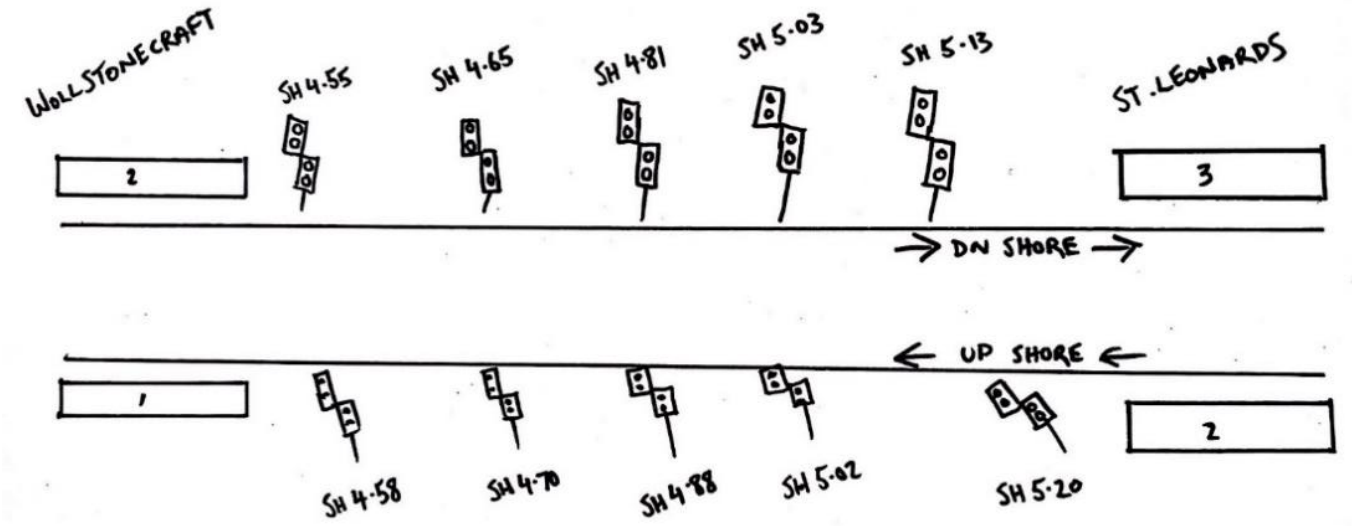


Figure 3.6.4 Sample Hand Drawn WPPD

3.6.5 Hazards, Controls, and Person responsible for Control

Worksite protection: **Lookout Working** 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**
Approaching rail traffic **Two way running, unsignalled movements within Yard Limits & multiple entry points**	Lookout Working (LW) as assessed in NRF015 & diagram. Consult the Lookout Working Prohibited Locations Register. All points of entry have been validated & safety measures applied. Position lookout(s) in a safe place. Confirm Minimum Sighting Distance (MSD) can be achieved using maximum track speed. Workers immediately move to the designated safe place when warned by Lookout. Workers remain in a safe place until advised by Lookout it is safe to resume work. Provide ALL CLEAR handsignal after workers & equipment are in a designated safe place.	PO & Lookouts
Ineffective warnings / Adjoining / surrounding worksites	Test & confirm workers can see & hear lookout warning at all times in the noisiest environment. Two independent audible warning devices. Workers to be within 50m (approx.1 OHW stanchion) of closest lookout.	PO & Lookouts
Crossing live lines	A qualified Protection Officer (PO) or Assess Corridor Safety (ACS) must make a safety assessment to cross live lines in accordance with NGE200 & supervise workers who do not hold that qualification.	Qualified PO/ACS
Accessing Danger Zone to place ATWS protection	Use appropriate safety measures as assessed on the diagram & validated by a PO.	Qualified PO
Adjacent live lines	Remain within the tracks being protected.	PO
Obstruction to minimum sighting distance	Provide warning and advise PO whenever line of sight is obstructed. E.g. Passing rail traffic, other workers, plant, machinery, etc…	Lookouts
Obstruction to reaching a safe place	Easily reachable designated safe places are to be agreed upon with safe passage from the worksite. Provide a lookout for tracks to be crossed to reach the safe place	PO
Moving worksites	Confirm lookouts are within sight & hearing of workers at all times. Position lookout(s) in a safe place.	PO & Lookouts

Figure 3.6.5 Sample Hazards, Controls, and Person responsible for Control

4 STEP 2 Onsite Validation

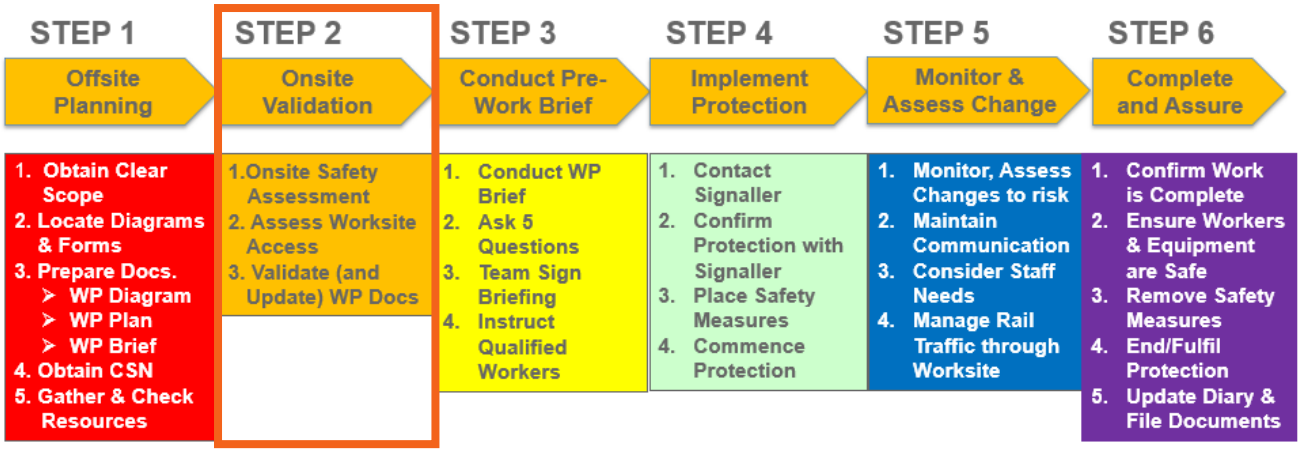


Figure 4 Step 2 Onsite Validation

4.1 Onsite Safety Assessment (Vehicles and Plant)

Number	Task	Key Point	Reason
1	Assess safety of vehicles and plant moving near the danger zone.	When entering the Rail Corridor, jointly assess the potential for vehicles and plant to encroach the danger zone with the Workplace Supervisor. When driving or manoeuvring alongside the track: • Hazards, such as pooled water, may hide large pothole causing loss of control. • Avoid driving into limited spaces.	To identify hazards and the controls when moving vehicles and plant near the danger zone.
2	Brief workers about safely moving vehicles and plant near the danger zone.	Add hazards and controls to the WP Brief: e.g.: • Walk the journey first, noting or removing any hazards if possible before driving. • Use a Spotter, or do not continue. • If vegetation is too dense, do not continue and advise the vegetation management team. • Drive at an appropriate speed and be vigilant. • Be aware of Train Driver perception. • Cross at designated level crossings.	To confirm that workers know the controls being utilised to reduce the likelihood of incidents and crashes attributed to vehicles and plant near the danger zone.

4.2 Assess Worksite Access (People and Equipment)

Number	Task	Key Point	Reason
1	Assess safety of people and equipment moving near the danger zone.	When inside the Rail Corridor, jointly assess with the Workplace Supervisor, the potential for people and equipment to encroach the danger zone. When walking or congregating alongside the track, be aware of: • Encroaching the danger zone. • Train Driver perception.	To identify hazards and the controls when people and equipment are moving near the danger zone.
2	Brief workers about safely moving people and equipment near the danger zone.	Add hazards and controls to the WP Brief: e.g.: • Place a Spotter. • Use temporary fencing or barriers e.g., vehicles to separate workers from the danger zone.	To confirm that workers know the controls for managing people and equipment near the danger zone.
3	Assess safety for walking in the Danger Zone	Identify easily-reached safe places. • Assess practicable alternatives: • An access pathway wholly in a safe place • Using road vehicles to drive to the destination • A grade separated pathway that is within reasonable distance (such as an overpass walkway) • Warning lights nearby that can be used • A location to cross the track that has appropriate visibility of approaching rail traffic in both directions and allows sufficient time to move to a safe place. NOTE: Adjusting the chosen location to cross tracks can provide improved visibility of rail traffic.	Not entering the Danger Zone ensures workers are not in the path of Rail Traffic. When considering to walk in the Danger Zone, it is important to assess alternatives that keep workers safe, and provide Drivers with sufficient visibility to continue without concern.
4	Brief workers about walking in the Danger Zone	Add the assessment to the WP Brief and brief the workers about where to walk, to check for rail traffic in both directions before crossing, and to walk without hesitation (as when crossing the road)	To confirm that workers know where and how to walk in the Danger Zone.

4.3 Validate (and update) WP Docs

Number	Task	Key Point	Reason
1	Take WP Docs on site.	Ensure WP Docs are in hand.	For something to check against.
2	Validate location using WP Diagram.	**Correct vicinity** Confirm you are where you should be, to perform the work according to your diagram. • Check your location against your diagram. • Use one of the following: ➢ Gate sign e.g., **101.536 D** (101.536kms Down-side) ➢ Infrastructure e.g., signal numbers ➢ Kilometrage e.g., stanchion, Km and ½ km marker ➢ Station or nearest street, in addition to the above. **Correct track** Confirm you have identified the correct track/s you will be working on. • Make sure your diagram is the correct way around by referencing increasing/decreasing stanchion numbers on site. • Locate the track you wish to access by counting the number of tracks from where you are standing and match it with your diagram. **Correct location** Confirm exact location using at least three assets. **NOTE:** More than one of the same asset types may be used. • OHW stanchion numbers • Signal and Points numbers • Survey plaque track names and kms • Station platform names and numbers • Km and ½ km markers **If Unsure??** • **Don't go on track!** Contact a Rail Safety Coach or the Workplace Supervisor.	Comparing identifying labels in the field with information on the diagram provides validation of your location. If the diagram is the wrong way around, there is the possibility that you will end up in the wrong location. Using three individual assets, rather than one or two, provides better validation.

Number	Task	Key Point	Reason
3	Inspect site for new hazards.	Planning documents do not show all potential hazards or conditions that may exist on site. Inspect the worksite to identify new hazards or conditions that might impact the plan. Consider for example: • Placing/removing protection. • Obstructions to nominated safe places. • Noise affecting warning devices or communication. • Trees or obstacles hindering sighting distance, etc.	Information in documents may be incomplete or inaccurate, posing risks to the workers. Development of the documents may have been incomplete because of unfamiliarity with the worksite. The site has changed since the last document update, or a new hazard is apparent at the worksite. To identify all hazards at the site and implement adequate controls.
4	Validate protection is appropriate.	Consider if anything found onsite (any new or changed hazards) require a change to protection. **STOP:** Do not proceed if site conditions mean the initial plans cannot be implemented or are no longer appropriate.	To implement protection arrangements that are appropriate for the work being performed and the actual site conditions.
5	Update WP Docs.	Prepare new documents or add missing information. Make corrections by striking through with a single line and initialling.	To reflect the actual worksite conditions.
6	Obtain a new CSN, if required.	Where there are changes to the following: • LW worksite location • ASB nominated worksite location • TOA limits or worksite location • SKS Blocking nominated worksite location • TWA worksite location or worksite kilometre location	To ensure the assessment has been completed prior to contacting the Signaller.
7	Obtain acknowledgement from Workplace Supervisor.	Obtain the signature of the Workplace Supervisor prior to delivering the briefing.	The Workplace Supervisor has overall responsibility for the worksite.

5 STEP 3 Conduct Pre-work Brief (WP Brief)

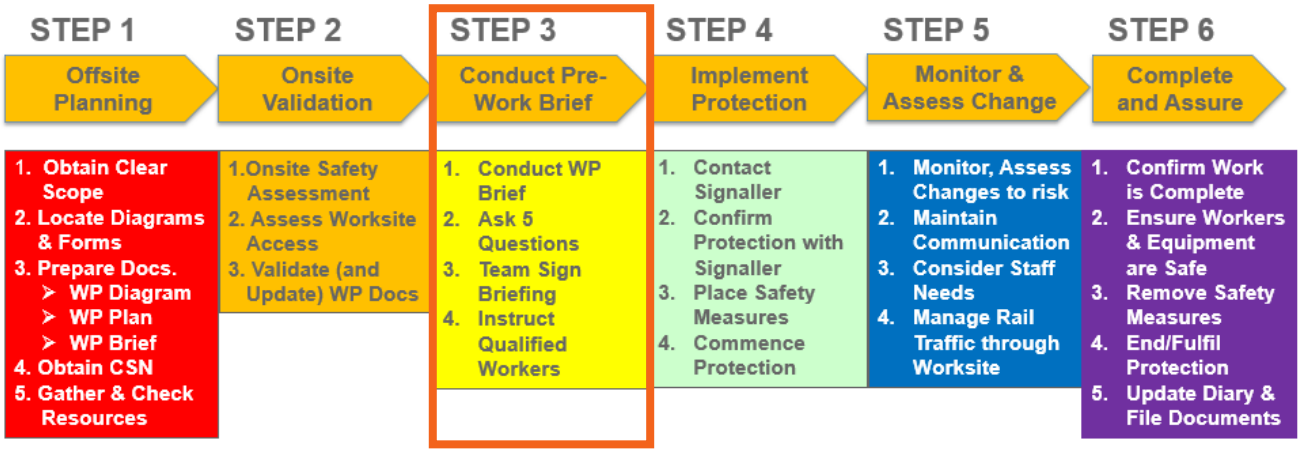


Figure 5 Step 3 Conduct Pre-Work Brief

5.1 Conduct Pre-Work Brief (WP Brief)

Number	Task	Key Point	Reason
1	Check RSW Cards for Safeworking Qualified Workers.	Confirm the identity and competence of Qualified Workers undertaking Safeworking duties relevant to the protection being implemented.	To ensure people undertaking Safeworking duties are appropriately qualified.
2	Engage the workers and deliver the WP Brief with the Workplace Supervisor.	Get the attention of the workers. e.g., "Hi everyone, I'm (name) your PO today and will brief you on the protection arrangements". "The Workplace Supervisor is (name…) and will brief you about hazards and controls for the work". Advise that if they have questions, you'll answer as you go, or at the end of the briefing. Ask questions to check engagement.	Stating your role helps clarify who is responsible for what. Team members can be distracted, or not engaged for many reasons. Asking questions gives people the opportunity to participate and an indication of their understanding.
3	Brief listed hazards and controls.	Read out the work details and type of protection. Explain the Hazards, Controls and People responsible.	To communicate the hazards and controls that have been considered.
4	Show WP Diagram and WP Plan.	**SHOW** the WP Diagram. Focus on: • Where it is safe to work on track. • Where the safe place is and how they will be warned to move there.	The WP Diagram provides a visual representation and orientation of the worksite. This supports their situational awareness and understanding. The WP Plan details the controls used to keep workers away from rail traffic.

Number	Task	Key Point	Reason
5	Ask questions.	Ask if they have any questions and clarify workers understanding. Ask some questions to confirm their knowledge.	To clear up any misunderstanding or correct omissions or errors.
6	Update WP Docs.	Add any missing information. Strike through and initial any corrections.	To have a correct assessment.
7	Brief Workplace Supervisor details.	No need to repeat if already conveyed by the Workplace Supervisor. Required if the PO is also the Workplace Supervisor.	To communicate responsibilities.
8	Read participant acknowledgements.	Ensure 'Acknowledgments' on page 2 of NRF 014 are read and confirmed.	To confirm requirements.

5.1.1 Tips for Delivering Briefings

Tip	Key Point	Reason
Prepare	• Read through the documents to understand the key details.	The better prepared you are, the more confident you will sound.
Use a confident tone	• To gain respect and engage the group. • Enthusiasm will influence the rest of the group. • Respond to questions in a strong confident tone.	The more confident, the better the engagement.
Use Appropriate Body Language	• Use an upright posture. • Make eye contact with the group. • Point to various physical landmarks and hazards.	The more animated and interesting the presentation the more confident and better the engagement.
Raise and Lower Voice	• This breaks the monotony and commands attention.	People's attention naturally drifts. They are alerted to the slightest and most subtle changes.
Provide Supporting Evidence	• Use the WP Docs to emphasise points of interest.	Brings credibility to the presentation and demonstrates that the PO has done a lot of work to keep them safe.
Use the power of SILENCE	• Taking a pause breaks the monotony and gives you time to collect your thoughts.	Silence raises the tension level and people wonder "What is next?" Typically members of the work group may be distracted and not paying attention.

Tip	Key Point	Reason
Ask questions to check they've listened	• Occasionally some people do not listen. On these rare occasions, regain their attention and re-iterate where necessary. • Explain that the PO's job is to get them home safely and to do that, they all need to listen. • Then re-start the brief.	Paying attention to the briefing may be the difference between life and death.

5.2 Ask 5 Questions

Number	Task	Key Point	Reason
1	Ask 5 questions.	Ask 5 Questions to check if workers have understood. 1. What method of protection are we working under? 2. What are the limits of the worksite protection? 3. Where is the safe place? 4. How will you be warned and move to a safe place if needed? 5. What are the hazards in this environment? **NOTE:** If responses to these questions are unsatisfactory, repeat the relevant parts of the briefing.	To test whether the key aspects of the briefing have been effectively communicated.

5.3 Team Sign the Briefing

Number	Task	Key Point	Reason
1	Obtain workers signatures.	Ask the workers to sign the briefing.	Signing provides evidence that the briefing took place with the workers.

5.4 Instruct Qualified Workers (QW)

Number	Task	Key Point	Reason
1	Instruct Qualified Workers.	Instructions will be relevant to the protection being implemented. (Refer to sections 9.2 to 9.8)	So that qualified workers know their role in protecting workers.
2	Update PO diary?	Consider recording relevant instructions given to the Qualified Workers.	To record relevant information.

6 STEP 4 Implement Protection

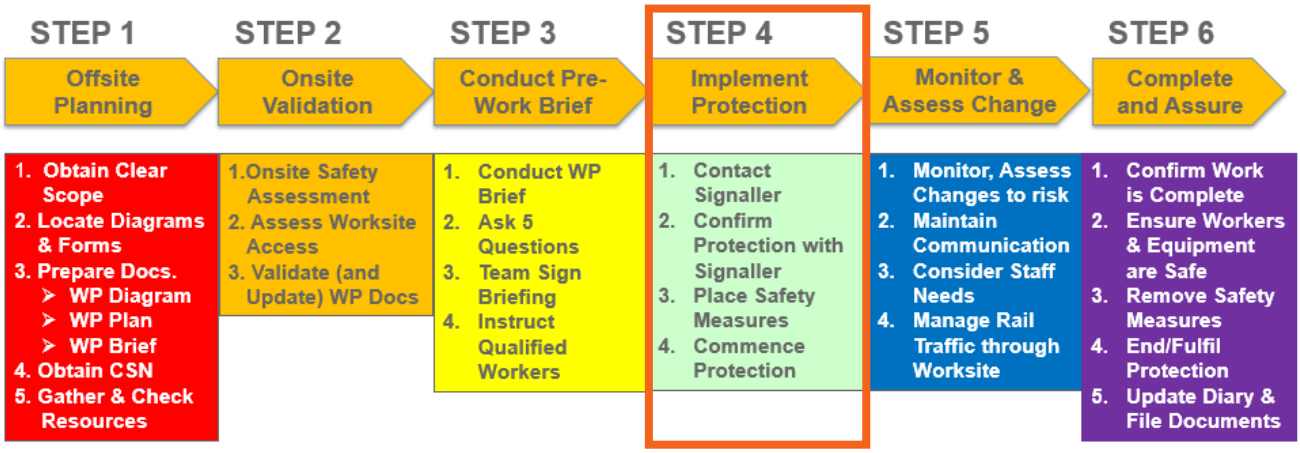


Figure 6 STEP 4 Implement Protection

6.1 Contact Signaller

Number	Task	Key Point	Reason
1	Prepare for the call.	Have WP Docs ready for reference. **NOTE:** Tips for Safety Critical Communication (SCC), refer to 6.2.1.	This prepares you to have a clear and concise conversation.
2	Call and confirm Signal Panel.	Refer to the Signal Box Phone List on RailSafe.	To ensure that you speak with the correct Signal Panel.
3	Identify name.	State name and PO Level.	So that the Signaller knows who they are talking with.
4	Request protection.	Be clear and unambiguous when communicating: • The type of protection needed. • The relevant line(s). • The suburb. Be patient, allow them time to understand the request and obtain the required forms.	This provides enough information to make an initial assessment of the request. **NOTE:** They are often managing other conflicting priorities.

6.2 Confirm Protection with Signaller

Number	Task	Key Point	Reason
1	Advise and confirm Worksite Location.	Read and confirm the worksite location as written on the WP Plan.	An error at this point may result in workers being unprotected.

Number	Task	Key Point	Reason
2	Advise and confirm protection arrangements.	Use the protection plan as a guide and the WP Diagram for reference when discussing the protection arrangements. If protection arrangements change during the discussion with the Signaller, such as change to the worksite location, or addition of a lookout etc..., end the call and reassess the WP Plan.	To ensure that the protecting assets for the worksite are identified and confirmed.
3	Confirm and record assurances.	Progressively confirm small chunks of information throughout the conversation.	To improve the chance of noticing an error in communication.
4	Confirm and record authorisation.	Update and initial any changes to the protection arrangements after reaching agreement.	The final arrangements need to be correctly communicated to the workers.
5	Update PO diary?	Consider recording relevant information discussed with the Signaller.	To record relevant information.

6.2.1 Tips for Safety Critical Communication

Tip	Key Point	Reason
Know the requirements	Be familiar with the requirements of: • NGE 204 Network Communications • NPR 721 Spoken and written communications • NS 0919 Network Communications.	Keep the conversation brief, clear and unambiguous. No unnecessary chat about "how people are" etc.
Prepare before calling	• Know what you are going to say. • Use your documentation to plan for the conversation.	To follow the lead communicator and answer questions clearly and concisely.
Repeat back!	• Repeat back what you believe you heard about the safety critical information provided.	Repeating back allows confirmation that information was effectively communicated. e.g., signal or points numbers, track names and locations, train or track vehicle numbers, protection numbers, phone numbers, times, etc.
Pace yourself	• Don't rush.	It helps both parties understand what has been said.
Ask questions	• If you're unsure of anything, ask a question to clarify.	Uncertainty may contribute to a safety error.

Tip	Key Point	Reason
Use phonetics	• Use phonetic alphabet and say numbers singularly.	To ensure safety critical aspects such as signals, points and train identifiers are communicated unambiguously and clearly.
Seek clarification	• If something is missed ask for clarification.	Ask for information that is missed to be repeated back. Use phonetics and speak slowly.
Have all key stakeholders been included?	• Have you communicated with all the required parties?	Ensure that all parties involved in the conversation have understood the content of the conversation.

6.3 Place Safety Measures

Number	Task	Key Point	Reason
1	Communicate with relevant stakeholders.	Request approval to access the danger zone from stakeholders such as Signallers, Yard Masters, Network Controllers, Possession Protection Officers, Coordinating Protection Officers, etc., depending on the level of protection.	To receive the relevant approval.
2	Implement POs safety measures.	Provide Qualified Workers with guidance for placing safety measures. A Protection Constraints Register is a useful tool that may be used (refer figure 6.3). Examples of good practice follow: • ATWS (refer section 9.1). • Work train / track vehicle Spotters (refer section 9.2). • Hand-signallers (refer section 9.3). • Lookouts (refer section 9.4). • Work train / track vehicle pilots (refer section 9.6). • Point clips (refer section 9.7). • RTS, Worksite Protection Markers / Possession Limit Markers / Delineation Markers (refer section 9.8).	Most protection methods require some safety measures to keep workers safe.
3	Advise stakeholders that PO safety measures are in place.	Notify relevant stakeholders once the safety measures have been implemented: e.g., Signallers, Yard Masters, Network Controllers, Possession Protection Officers, Coordinating Protection Officers, etc., depending on the level of protection.	For safety and operational reasons.
4	Update PO diary?	Consider recording relevant information about placing safety measures.	To record relevant information.

Protection Constraints Register											Page 1 of 1
Date:		Protection: e.g. LPA			Protection Officer:					Version:	May 2021 V1.0
Protection details *(to be filled out by Protection Officer)* * RTS = Railway Track Signals *WPM = Worksite Protection Marker *PLM = Possession Limit Marker							Protection Placed		Protection Lifted		
Item #	Qualified worker(s)	Protection type*	Suburb	Location (e.g. city side 55 pts, Dn rail, etc...)	Track	KM	Time/Date	By	Time/Date	By	Comments
3. Equipment Booked Out of Use											
Location:		Asset:		Date:	Booked Out By:		Reason Booked Out:				
4. Sign Off											
	Name		Position		Signed		Date				
Protection Officer check:											
Qualified Worker check:											
All Protection Placed:	hrs		All Protection Removed:		hrs						

Transport Sydney Trains

Figure 6.3 Protection Constraint Register

6.4 Commence Protection

Number	Task	Key Point	Reason
1	Advise Workplace Supervisor protection is in place.	Work commences in the danger zone.	The Workplace Supervisor has assurance from the PO and can instruct workers to commence work.

7 STEP 5 Monitor and Assess Change

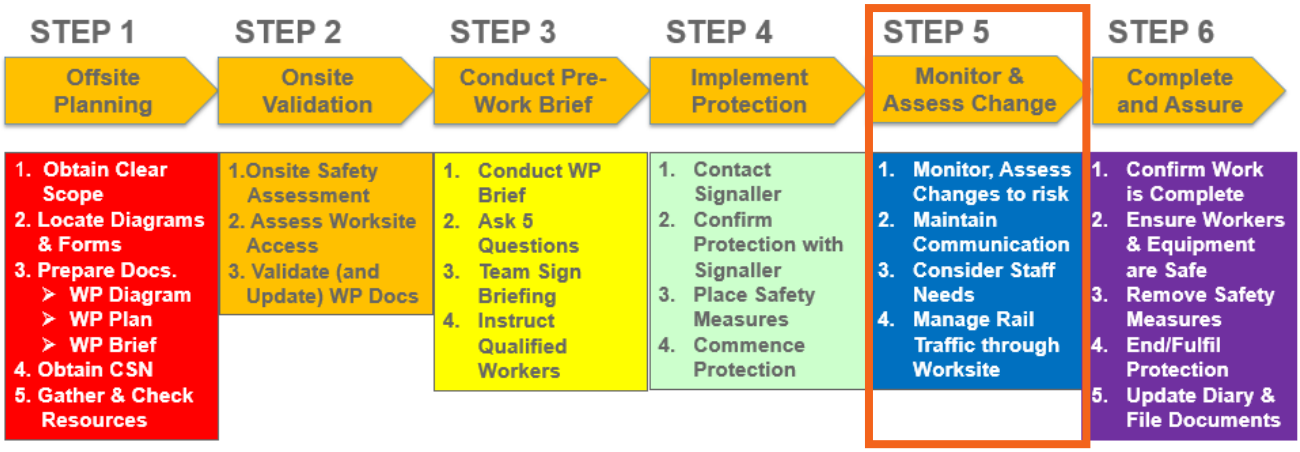


Figure 7 STEP 5 Monitor and Assess Changes to Risk

7.1 Monitor and Assess Change

Number	Task	Key Point	Reason
1	Notice a new or changed hazard.	Be aware of new hazards or changes to hazards, e.g., changing weather conditions, changes in visibility due to fog, light levels or moving vehicles, excessive noise, unexpected traffic on the network, changes in personnel etc.	To respond in a timely manner.
2	STOP work.	When conditions change presenting a new or increased risk to the workers in the danger zone, instruct the Workplace Supervisor to STOP work immediately.	A change in conditions may increase the risk of being struck by rail traffic in the danger zone.
3	Confirm workers and equipment are in a safe place.	Ensure all workers and equipment are removed from the danger zone.	To avoid an incident from the new or changed the hazard.
4	Conduct safety assessment.	Identify how the new hazard will be controlled.	To determine the appropriate control of the risk to the workers and equipment.
5	Update WP Docs and implement new controls.	Add the new hazards and controls to the WP Docs. Implement controls in accordance with the updated WP Docs.	To provide a complete briefing to the workers about the hazards and controls to being adopted.
6	Obtain a new CSN, if required.	Where there are changes to the following: • LW worksite location • ASB nominated worksite location • TOA limits or worksite location • SKS Blocking nominated worksite location • TWA worksite location or worksite kilometre location	To ensure the assessment has been completed prior to contacting the Signaller.
7	Re-brief workers.	Re-brief the workers of the new hazards identified, and the controls implemented to mitigate them.	To confirm that the workers are aware of the new controls in place.
8	Sign amended briefing.	Enter the time of the amended briefing and initial.	To record the timeline of events.

7.2 Maintain Communication

Number	Task	Key Point	Reason
1	Maintain effective communication.	Always maintain effective communication with the Workplace Supervisor / PPO / CPO etc. e.g., test and check that chosen forms of communication, such as radios, mobile phones etc., work as intended on site. **NOTE:** Be in a safe place when using communication devices.	To provide immediate communication in the case of an emergency. For efficiency and to prevent frustration that may lead to error. Situational awareness can be lost when using communication devices leading to potential injury.

7.3 Consider Staff Needs

Number	Task	Key Point	Reason
1	Consider needs of Qualified Workers.	When implementing protection, consider and plan for the needs of the Qualified Workers, including: • How long they will be there, breaks and rotation. • Access to the location: ➢ Do they need to walk in the danger zone? ➢ Do they have vehicles to get there, or will they be driven? etc. • Equipment to control environmental hazards (huts, chairs, umbrellas, water etc.). • Constant monitoring of how staff are coping and managing the protection.	To provide Qualified Workers with the best chance of doing everything they need to do and do it safely.

7.4 Manage Rail Traffic through the Worksite

7.4.1 Manage Rail Traffic not associated with the worksite

Number	Task	Key Point	Reason
1	Plan to clear the line.	If rail traffic is to travel through the worksite: • Plan with the Workplace Supervisor, to make the line safe, and remove equipment, workers, and protection.	To keep the rail network running efficiently.
2	Arrange to clear the line.	Arrange, with the Workplace Supervisor, to: • Make the line safe for rail traffic. • Move workers and equipment to a safe place.	To keep workers and equipment safe.
3	Confirm the line is clear.	Confirm, with the Workplace Supervisor, that: • The line is safe for rail traffic. • Workers and equipment are in a safe place.	To prepare for the safe passage of rail traffic.

Number	Task	Key Point	Reason
4	Arrange for rail traffic to pass.	Request the Qualified Workers to: • Advise, the Driver or Pilot, of the appropriate speed. • Remove the protection, to allow rail traffic to proceed. • Replace protection immediately after each rail traffic has passed.	To allow rail traffic to pass through the worksite. To ensure the workers are protected before commencing work.
5	Confirm protection is in place.	Confirm that protection is in place.	To prevent rail traffic entering the worksite.
6	Confirm work may recommence.	Confirm with the Workplace Supervisor that work may recommence.	To allow continuation of the work.
7	Update PO's diary?	Consider recording relevant information about managing rail traffic through the worksite, e.g., discussion with the Workplace Supervisor about track speed.	To record relevant information.

7.4.2 Managing Rail Traffic not associated with the worksite

Note: This guide can be used for managing rail traffic through multiple signals and points, multiple times for a defined period.

Number	Task	Key Point	Reason
1	Plan the route to be set.	• Draw a map of the route to be set. • Identify signals and points numbers.	To provide clarity to the Qualified Worker(s) (QW(s))
2	Assign a QW for each set of affected points.	The assigned QW will be the single point of contact with the Signaller to set their allocated points correctly.	To ensure security of the points and simplify communications
3	QW(s) arrange points to be set.	Ensure no rail traffic is on the affected set of points. Arrange with the Signaller to set the points appropriately: • If required, obtain, and secure the points handle to wind the points. • If the Signaller cannot provide assurance that the points are set in the required position, the QW must ensure the points are secured.	To prepare for the passage of rail traffic.

Number	Task	Key Point	Reason
4	QW places indicator in excluded route.	Place a visual indicator within the four-foot of the route that is not to be traversed.	To visually warn the pilot of an unset route.
5	Inspect the route has been set correctly.	Visually inspect that the route has been set correctly before rail traffic traverses the route.	To ensure that points are not damaged.
6	Request the Signaller to pass signals at stop for a defined period.	After all the required points have been set by the designated QWs, call the Signaller and obtain authority to pass multiple signals at stop for a defined period by quoting: • The line name. • Each signal number. • The duration of the arrangement (no longer than the Signaller's shift).	To ensure that arrangements are agreed in detail for all signals and points being traversed.
7	Diarise the arrangements.	Document the agreed arrangements, listing the line name, each signal number, and the duration of the arrangement.	
8	Check the route.	Conduct a second visual inspection that the route is set correctly to allow rail traffic to work as agreed.	To ensure the route is set correctly.
9	Confirm work may recommence.	Confirm with the Workplace Supervisor that work may recommence.	To allow continuation of the work.
10	Cease the agreed arrangements.	At the end of the agreed period, or if arrangements need to change, contact the Signaller, and end the arrangements, or go back to task 6 above, to extend the agreed period.	To established agreed arrangements.
11	Update PO's diary	Record that arrangements have concluded.	To record relevant information.

8 STEP 6 Complete and Assure

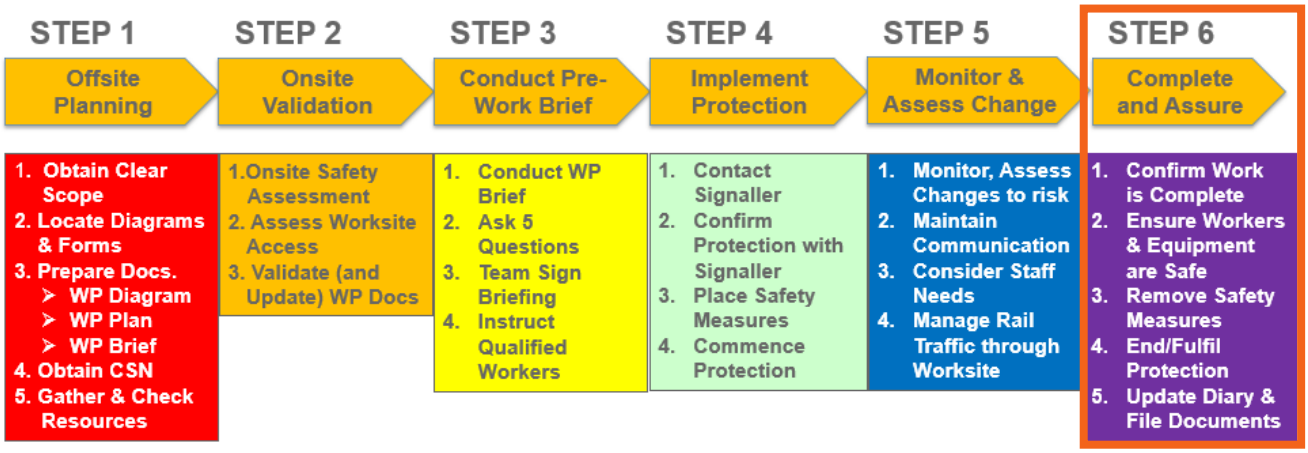


Figure 8 STEP 6 Complete and Assure

8.1 Confirm Work is Complete

Number	Task	Key Point	Reason
1	Confirm work is complete.	Ask the Workplace Supervisor whether: • Work is complete. • The line is certified and available for use. • There are any operational restrictions.	To relay relevant operational advice to the Signaller.

8.2 Ensure Workers and Equipment are Safe

Number	Task	Key Point	Reason
1	Confirm workers and equipment are in a safe place	Confirm that workers and equipment: • Are clear of the danger zone. • Will to remain in a safe place.	To keep workers and equipment safe.

8.3 Remove Safety Measures

Number	Task	Key Point	Reason
1	Instruct Qualified Workers to remove PO safety measures.	Instructions Qualified Workers about which PO safety measures they are to remove.	To ensure all PO safety measures are removed.
2	Confirm when removed and Qualified Workers are in a safe place.	Instruct Qualified Workers to advise when the removal of safety measures is complete, and they are in a safe place.	To reduce the chance of leaving PO safety measures on track and ensure workers are safe.

8.4 End/Fulfil Protection

Number	Task	Key Point	Reason
1	Identify name and worksite location.	Advise the Signaller of your name and the worksite location.	To provide the Signaller with situational awareness.
2	Request to end/ fulfil protection.	Request the protection to be ended / fulfilled and convey the protection number.	To provide the Signaller with the reason for the call.
3	Advise workers and equipment clear of the danger zone.	Confirm with the Signaller that there are no workers or equipment in the danger zone.	To clarify with the Signaller that there will be no risk to workers or rail traffic.
4	Advise Signaller of restrictions.	Advise Signaller of any new operational restrictions after the work on track has been completed. e.g., a remaining track defect may need a speed restriction to manage safety risk until rectified.	So that the Signaller knows how to safely operate rail traffic.
5	Record time protection ended/ fulfilled.	Record the time that protection was ended/fulfilled.	So that the Signaller can bring the network back into operation.

8.5 Update Diary and File Documents

Number	Task	Key Point	Reason
1	Update PO's diary?	Update the PO's diary with important events.	To record relevant information.
2	File WP Docs	File all Worksite Protection documents in accordance with the Workplace Supervisor's requirements.	Network Rules and Procedures require WP Docs to be securely retained for a minimum of 30 days.

9 Appendix – Check Lists

9.1 Automated Train Warning System (ATWS) Checklist

ATWS Setup Checklist

Location/Workplace:					**Date:**
Workplace Manager:					
Safety Coach:					
Sstage	**Activity**	**Title**	**Response**	**ok?**	**Action Plan if non-conforming**
0.0 Preparation	0.1	Before the day of setting up the ATWS ensure that batteries have been charged and that the system is functional and all parts are in their boxes.			
1.0 Establish Work Scope and Location	1.1	Confirm scope with TL and EGL	From: To:		
	1.2	Calibrate Minimum Warning Distance	MWD:		
	1.3	Load Truck			
	1.4	Drive to Site			
	1.5	Arrive at Site			
2.0 Make Ready the Site	2.1	Put Lookout Working in place			
	2.2	Remove Equipment from truck			
	2.3	Setup Tripod			
	2.4	Check Foot width is 12.50 mm.	Actual reading: (mm)		
	2.5	Dig a small hole to house the lead and the sensor			
	2.6	Run the lead under the rail (protection)			
	2.7	Attach sensor to the rail			
	2.9	Check height of sensor (range 40 -45mm	Actual reading: (mm)		
3.0 Initiaisation Test	3.0	Connect Battery to ZPS			
	3.1	Turn key seitch on			
	3.2	Hold down 'CAL' button for 3 seconds			
	3.3	Wait for flashing green light to go to a solid green light			
	3.4	Run calibration plate over the sensor in right running direction			
	3.5	Wait for steady blue light to go off the screen			
	3.6	Run calibration plate over the sensor in wrong running direction			
	3.7	Wait for steady blue light to go off the screen			
	3.8	Lock the unit			
	3.9	Remember the number of the unit			
	3.9.1	T1 ok. Reject the rest.			
	3.9.2	Check that the buttons are flashing and the screen says 'waiting for Control unit'			
	3.9.3	Lock the machine and take keys			
	3.9.4	Write down the number of the machine.			
4.0 Calibrate Sender Unit	4.1	Travel from Sender Unit to actual work site			
	4.2	Set up ZPW (Erect stand)			
	4.3	Calibrate Sender Unit			
	4.4	Status ok - Sender Unit			

Figure 9.1 ATWS Setup checklist

9.2 Useful tips when using a Track Vehicle Spotter

Number	Task	Key Point	Reason
1	Identify the Spotter.	• Introduce Spotter to the Track Vehicle Operator (TVO). • Visually identify them.	To establish rapport. To confirm responsibility.

Number	Task	Key Point	Reason
2	Agree objectives.	• Identify nearby workers, points, plant, equipment, and obstructions. • Confirm limits of movement.	To prevent injury, derailment, and damage. To provide a safe back-up in case audible warning systems fail or are not available.
3	Implement engineering controls.	Utilise all available engineering controls to restrict the movement of the vehicle. e.g., collision detection, etc.	To reduce potential for human error.
4	Agree Spotter location.	• Within clear sight of the TVO. • In a safe place.	To aid clear communication and safety of the Spotter.
5	Agree communication.	The TVO and Spotter need to agree about the communication to be used to control movement.	To ensure safe movement of the track vehicle.
6	Confirm communication effectiveness.	Test two forms of communication between the TVO and Spotter. Consider effectiveness of communication and any background noise.	To provide reliable and effective communication prior to commencing work.

9.3 Tips when using a Hand-signaller (HS)

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	NGE 202 NPR 715	
1	Confirm HS qualifications.	Check that their Rail Safe Working (RSW) card shows they are appropriately qualified.	Only Qualified Workers are permitted to perform the role of a Hand-signaller. The Network Rules and Procedures Training and Certification Standards identify appropriately Qualified Workers.
2	Meet with the HS.	Meet with the HS after the WP Brief.	To ensure the HS understands their duties. To instruct each HS one-on-one.
3	Provide a copy of the WP Diagram.	If a hard copy is not available, photograph and send by text.	To provide context and help improve situational awareness.

Number	Task	Key Point	Reason
4	Confirm their location.	Use the WP Diagram to: • Make sure the HS understands the signal number or kms where they will be located. • Highlight the access gate, for the HS to access their position. Check if the HS is familiar with the area and knows how to access the location. If not, take them to the location. • Remind them to check right vicinity, right track, right spot (refer to section 4.3, task 2).	To provide clear understanding and situational awareness.
5	Provide a copy of the relevant "movements allowed" table for the type of TWA.	Refer NPR 702 "movements allowed" table on RailSafe. There are different tables, use the table relevant to the TWA being implemented.	As a reference.
6	Verify understanding of the "movements allowed" table.	Ask the HS questions to check their understanding of the "movements allowed" table. If there is not clear understanding, request help from a Rail Safety Coach.	A great refresher for the HS. Provides confidence for the team.
7	Check equipment.	Confirm that: • The HS has the correct equipment and information. e.g., radios, nominated channel, spare battery, RTS, telephone numbers of other Qualified Workers. • Communication with the Signaller and PO is effective.	Equipment that is not working correctly can compromise safety of the site and cause frustration and delays.
8	Request a final radio check.	Once at their location, confirm effective communication.	To establish clear and reliable communications with the PO and Signaller.

Number	Task	Key Point	Reason
9	At Type F Level Crossings	Confirm that the HS: • has effective communications with the affected Signaller. • is at the correct level crossing for the duration of the work. As soon as the affected Signaller or delegate advises the approach of rail traffic: • HS to confirm the track and direction of approaching rail traffic. • HS to immediately move into position where rail traffic will see the Handsignal on approach to the level crossing. NOTE: Calculations or timetable running must not be used to determine the approach of rail traffic. • Rely only on advice of approaching rail traffic from the affected Signaller or delegate.	Only the affected Signaller or delegate can identify the location of rail traffic. To ensure that road traffic and pedestrians are safe. Neither the track speed, distance or timetable can be relied upon to determine the approach of rail traffic.

9.4 Tips when using a Lookout

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	NPR711 NWT310 NPR751	
1	Confirm Lookout qualifications.	Check that their Rail Safe Working (RSW) card shows they are appropriately qualified.	Only Qualified Workers may be a Lookout. The Network Rules and Procedures Training and Certification Standards specify the requirements.
2	Meet with the Lookout.	Meet separately after the pre-work brief.	To ensure the Lookout understands their duties. To instruct each Lookout one-on-one.
3	Agree Lookout location.	Agree on a location that is: • Safe. • Within sight and hearing of the workers. • Has sufficient sighting distance.	To keep the Lookout safe. To provide effective communication. To achieve the Minimum Warning Time (MWT).
4	Discuss MWT.	Discuss distance needed for sight of rail traffic from the Lookout position.	The Lookout knows the correct sighting distance to be maintained.

Number	Task	Key Point	Reason
5	Agree how workers will be warned.	Test that two forms of communication are working and will be effective. Consider things such as background noise from nearby traffic etc.	Effective communication is needed in case one device fails.
6	Identify a safe route.	Agree the safest way for the Lookout to get to their position.	To keep the Lookout safe.
7	Test devices on site.	Test that workers can clearly hear both warning devices from the Lookout's position.	To provide effective warning.
8	Confirm sighting distance.	Confirm that the Lookout has the required sighting distance.	To achieve sufficient warning.
9	Consider additional Lookout.	If minimum sighting distance is not achieved, assess for an additional Lookout. Add five seconds to the "see time" to calculate new sighting distance. If this cannot be achieved, then Lookout Working (LW) must not be implemented. Refer to NPR 751 – Calculating Minimum Warning Time	It may be possible to implement LW if an additional Lookout is used.
10	Re-position Lookout for moving worksites.	Move workers to a safe place. Recalculate MWT, MSD and update WP Docs to show all the Lookout positions. The PO's diary may be used to record calculations. Repeat tasks 1 to 8 above.	To keep workers safe whilst repositioning the Lookout. To achieve sufficient MWT. To provide an option if you run out of space on NRF 015.

9.5 Tips with Track Vehicle Operators (TVOs)

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	NPR 748	
1	Confirm TVO qualifications.	Check that their Rail Safe Working (RSW) card shows they are appropriately qualified.	Only TVOs are permitted to operate track vehicles. The Network Rules and Procedures Training and Certification Standards specify the requirements.
2	Meet with the TVO.	Meet separately from the pre-work brief.	To discuss the specific details of operating the track vehicle within the protected worksite.

Number	Task	Key Point	Reason
3	Advise the limits of movement.	Discuss the: • Line and limits of their working location. • Discuss not to pass signals at stop, unless otherwise advised by the PO. • Discuss that they will be piloted if they need to cross points.	To prevent collision with: • Rail traffic on the live line. • Travelling work train/ track vehicle. • Adjacent work train/track vehicle. To prevent derailment at points. Worker in path of work train/track vehicle.

9.6 Tips when using a Pilot for Rail Traffic

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	NPR710 Piloting Rail Traffic	Pilots may be required to accompany Drivers and Track Vehicle Operators (TVOs) to direct rail traffic movements.
1	Confirm Pilot qualifications.	Arrange for a Qualified Worker who holds: • Hand-signaller Level 2, or • PO Level 2, 3 or 4.	Only suitably Qualified Workers are permitted to pilot rail traffic.
2	Advise the journey details.	• Where to meet the rail traffic. • Limits of the authority. • How entry and exit will be authorised for the Authority. • Locations of Hand-signallers. • Where the journey will start and end. • Where to change lines. • Locations of worksites. • Operating restrictions and conditions. Consider: • Other rail traffic within the Authority. • Altered track geometry.	The Pilot needs an understanding of the conditions and restriction, to plan how they will direct the rail traffic movements on the journey.
3	Confirm route knowledge.	The Pilot needs to have: • Knowledge of the route. • Effective communication with the Signaller.	To convey the unique conditions within the Authority to Drivers and TVOs, enabling safe passage.

Number	Task	Key Point	Reason
4	Confirm communications.	The Pilot needs appropriate equipment. The Pilot needs contact details for: • Relevant Signallers. • PPO/Work Train Coordinators. • All relevant CPOs and POs.	To establish and maintain effective communication with all key stakeholders along the route for: • Efficient passage. • Emergency situations.
5	Advise journey protocols.	The Pilot is to: • Establish and maintain effective communication. • Obtain authority to enter and exit the Authority. • Confirm points are correctly set and secured before traversing them. • Tell the Driver or TVO about worksite locations. • Follow all Hand-signaller instructions. • Obtain PPO, CPO and PO authority to remove protection (if no Hand-signaller). • Remove, or arrange to remove, protection before passing its location.	When rail traffic arrives at the protection, advise the Pilot to “hold for further instruction”.
		• Replace, or arrange to replace, protection after passing its location. • Tell the PPO, CPO, and PO when: ➢ Protection has been replaced. ➢ The authority or a worksite is entered. • Request the PPO, CPO, or PO for: ➢ Authority for any movement. ➢ Assurance that the intended route is clear with no conflicting movement. • Obtain the Signallers authority to exit the Authority. • Record relevant details, including entry and exit for each worksite and the Authority.	

9.7 Tips when using Point Clips

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	NPR 707 Clipping Points	Point clips are used to secure points.
1	Confirm Qualified Worker (QW) qualifications.	Check that their Rail Safe Working (RSW) card shows they are appropriately qualified.	Only Qualified Workers are permitted to use point clips. The Network Rules and Procedures Training and Certification Standards identify appropriately Qualified Workers.
2	Meet with the QW.	Meet separately from the pre-work brief.	To convey the detailed information specific for clipping points.
3	Advise the locations for point clips.	• Provide the QW with a copy of the WP Diagram and Constraints register. • Discuss the safest way to get to the designated locations. • Check their understanding.	To clearly detail the location for each point clip.
4	Check they know where to find the point clips.	Located near the set of points and have the corresponding numbers for the points to be secured.	To ensure the correct point clips are used.
5	Confirm the QW has the appropriate key.	An SL key, or XL key if authorised.	
6	Discuss safe access with the QW.	• Discuss that a Spotter or protection will be provided if the QWs assessment identifies the need. • Identify their safe places prior to placing the protection.	

Number	Task	Key Point	Reason
7	Check their understanding of clipping points.	Before fitting clips that: • The work can be done safely. • Authority to clip the points has been given. • The Signaller has given assurance the points will not be operated. • Points to be clipped are in the required position. • Switch blade is tightly against the stock rail. • The point clips to be used are the correct type for the set of points to be clipped. Fitting point clips: • Fit the point clips at the correct position for that set of points. • Make sure the point clips are fitted as close as possible to the tapered end of the switch blade. • Make sure the point clips are fitted to the underside of the rail and between the sleepers. • Lock the point clips using an SL lock, or if authorised, using an XL lock. Checking point clips have been fitted correctly: • The barrel nut of the point clips is positioned outside the four-foot. • The point clips are secured tightly and cannot be moved by hand. • The set of points are properly closed. • The route is correct, before allowing rail traffic to travel.	The QW may not have clipped points for some time.
8	QW to confirm location.	Remind them to check right vicinity, right track, right spot (refer to section 4.3, task 2).	To ensure situational awareness and that protection is applied in the correct location.
9	QW to await PO instructions.	The PO will advise when protection may be placed.	
10	QW confirm points have been secured.	Advise the PO about the details of the points that have been secured.	To confirm the worksite protection controls have been implemented.

9.8 Tips for Placing Railway Track Signals (RTS), Worksite Protection Markers, Possession Limit Markers and Delineation Markers.

Number	Task	Key Point	Reason
NOTE	Refer to relevant NWR&P.	• NPR 700 Using a Local Possession Authority • NPR 701 Using a Track Occupancy Authority • NPR 702 Using a Track Work Authority • NPR 709 Using Rail Track Signals	RTS are used to warn Drivers and Track Vehicle Operators (TVOs). The number of RTS explosions indicate what drivers must do.
1	Confirm Qualified Worker (QW) qualifications.	Check that their Rail Safe Working (RSW) card shows they are appropriately qualified.	Only Qualified Workers are permitted to place RTS. The Network Rules and Procedures Training and Certification Standards identify appropriately Qualified Workers.
2	Meet with the QW.	Meet separately from the pre-work brief.	To focus on the information specific for placing RTS, worksite protection markers, possession limit markers and delineation markers.
3	Advise the locations for safety measures.	• Provide the QW with a copy of the WP Diagram and Constraints Register. • Discuss the safest way to get to the designated locations. • Check their understanding, e.g.: ➢ Ask QWs to explain which rail the RTS will be placed on (left-hand rail facing approach of rail traffic into the worksite). ➢ The position of markers (middle of the four foot).	To clearly communicate the designated locations.
4	Check the equipment.	Ask the QW to check: • There is enough equipment. • The equipment is to standard and that lights work. • The RTS expiry date.	
5	Discuss safe access with the QW.	• Discuss that a Spotter or protection will be provided if the QWs assessment identifies the need. • Identify their safe places prior to placing the protection.	

Number	Task	Key Point	Reason
6	Give QW a copy of the Constraints Register and WP Diagram.	Constraint Register and WP Diagram to be on site and in hand with the QW.	To validate the locations on site.
7	QW to confirm location.	Remind them to check correct vicinity, correct track, correct spot (refer to section 4.3, task 2)	To ensure situational awareness and that protection is applied in the correct location.
8	QW to await PO instructions.	The PO will advise when protection may be placed.	
9	Confirm after placement.	The QW advises that: • The protection has been placed. • They are in a safe place.	Work cannot proceed until it has been confirmed that protection is in place.

10 Referenced Documents

- RailSafe/Rules and Procedures
- RailSafe/Forms
- RailSafe/Diagrams and NLAs
- RailSafe/Network Standards and Policies
- RailSafe/Worksite Protection Tools
- RailSafe/Possession Management
- RailSafe/FAQs

11 Document Control

Custodian: Senior Manager Rail Corridor Safety

Approver: Director SEQR Service Delivery E&M

12 Version History

Version	Issue Date	Change Notes
1.0	30/04/2024	Replaces WP Guidelines v1.0 1 July 2022 on RailSafe with updates to sects. 3.3.2.1, 4.2.3&4, 6.2.2, 7.1.6, 7.4.2, 9.3.9