

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
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# NR/L2/OHS/019

## Module 03

### Planning and working using protection arrangements and warning systems

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Ref:	NR/L2/OHS/019/03
Issue:	3
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Compliance date:	02 September 2023

## Contents

<b>1 Scope</b> .....	<b>3</b>
<b>2 Protection arrangements</b> .....	<b>3</b>
<b>3 Planning protection arrangements</b> .....	<b>4</b>
<b>4 Verifying the SWP</b> .....	<b>8</b>
<b>5 Authorising the SWP</b> .....	<b>8</b>
<b>6 The approval and implementation of the safe work pack by the person in charge</b> .....	<b>8</b>
<b>7 Where the line block is to be shared</b> .....	<b>8</b>
<b>8 Hand back of the line block by person in charge or PC</b> .....	<b>10</b>
<b>9 Warning Systems</b> .....	<b>10</b>
<b>Appendix A Definitions</b> .....	<b>11</b>

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

## 1 Scope

This module describes the additional requirements of planning and working using:

- a) protection arrangements;
- b) warning systems.

This module includes the additional requirements for planning a [complex site of work](#) using protection systems.

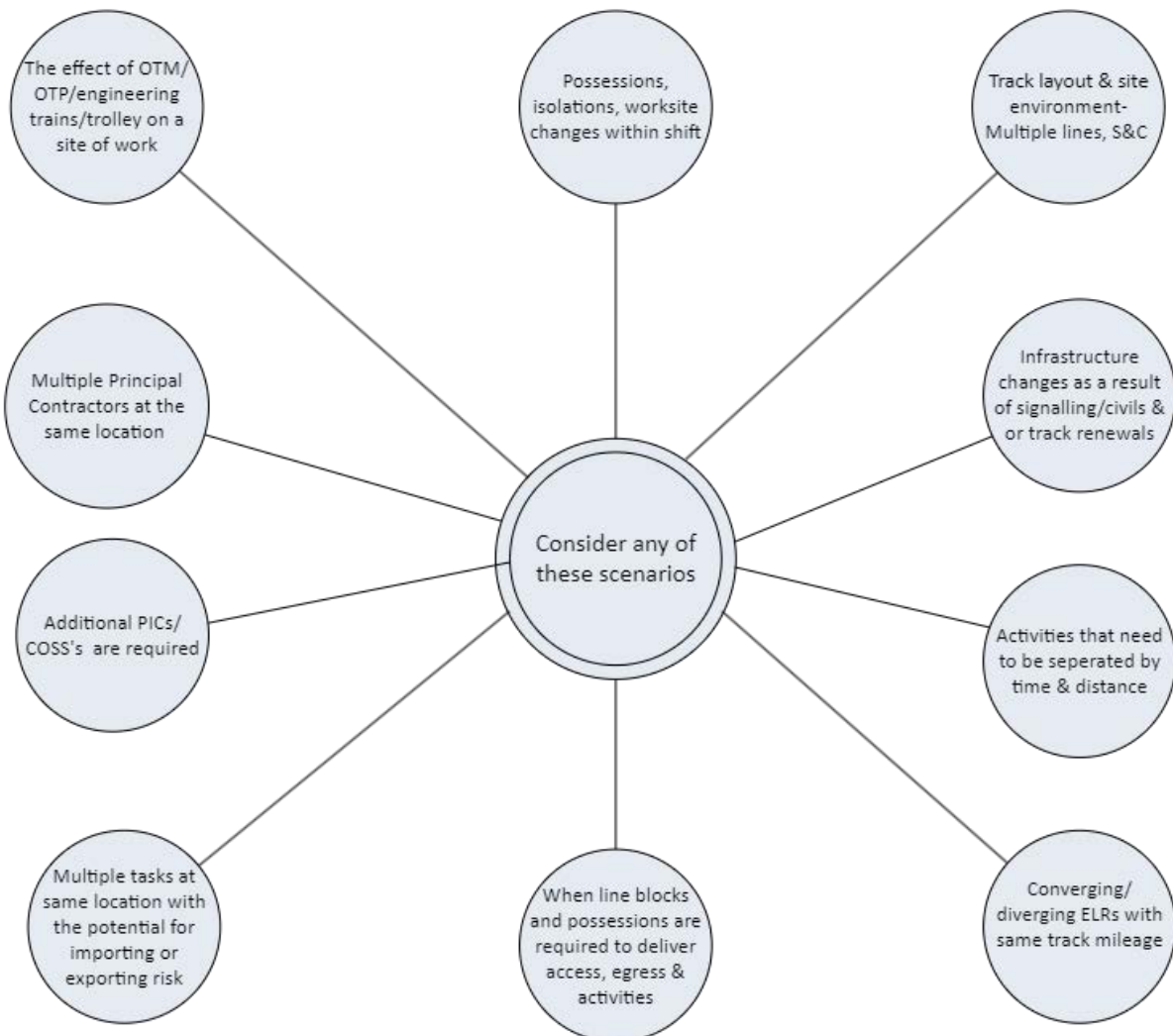
This module applies to the responsible manager (RM), Planner and person in charge

## 2 Protection arrangements

The RM shall:

- 2.1 Select the most appropriate Planner and the person in charge who have the knowledge, experience and competence in the planning and use of the protection and/or warning systems.
- 2.2 Provide the Planner with the information detailed in 4.2.1 of NR/L2/OHS/019.
- 2.3 Decide from Figure 1 if the access, egress, and activity is a complex site of work.

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023



**Figure 1 – What makes a complex site of work?**

### 3 Planning protection arrangements

The Planner shall:

- 3.1 Agree with the RM shift date(s) for the work.
- 3.2 Agree with the RM whether the line block(s) are [published \(WON\)](#) or [between trains protection](#).
- 3.3 Plan to arrange access, egress and activities where work is standalone from other works, thereby reducing the potential for importing or exporting risk.
- 3.4 Follow the Hierarchy of control for operational risks in Table 4 of NR/L2/OHS/019 or, when this cannot be achieved, communicate and collaborate with the person in charge and other line block users (see clause 7 of this module) where the line block is to be shared to establish a safe method of delivery.
- 3.6 Use the flowchart in Figure 2 to decide which line block is booked and which system to use.

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

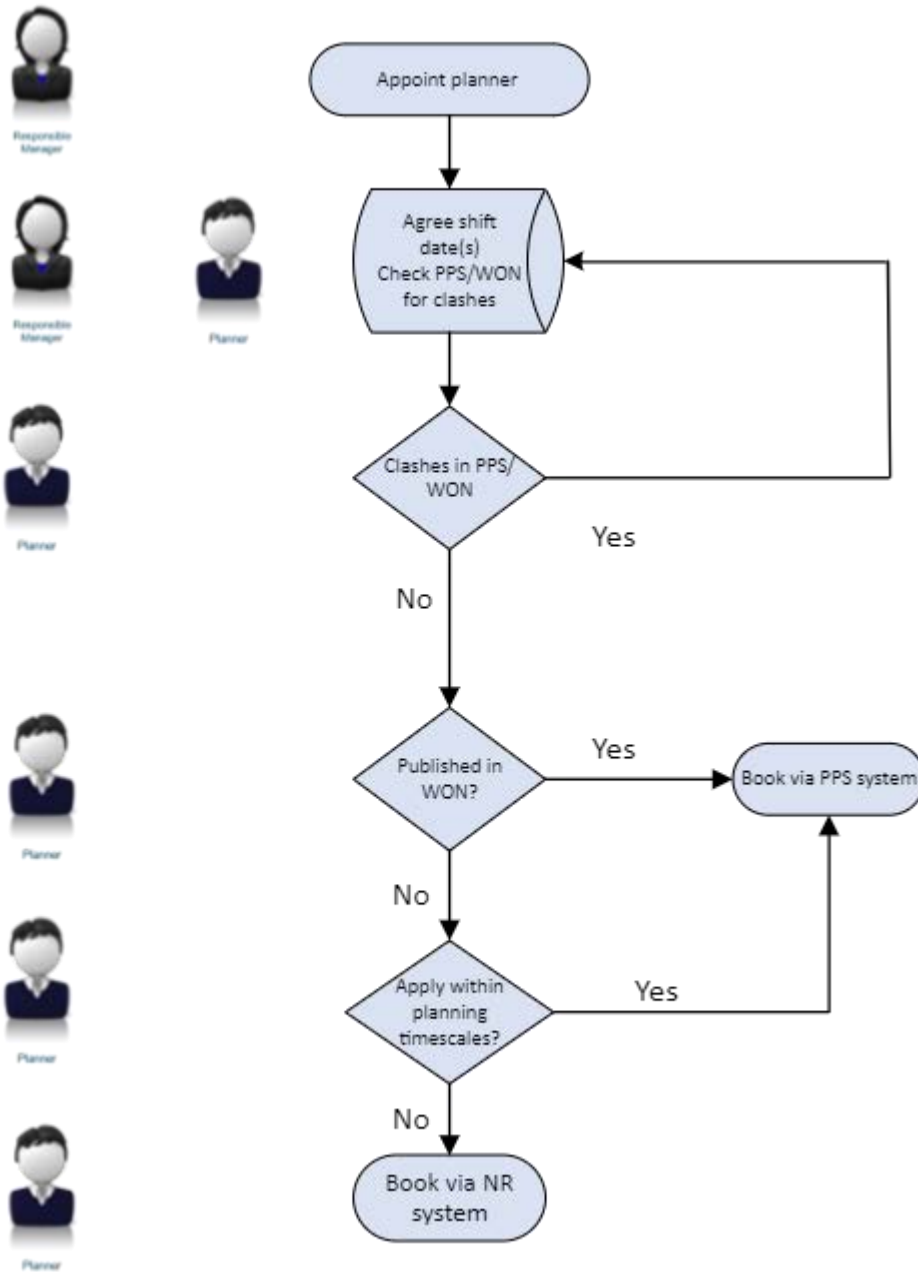


Figure 2: Decision tree on which system to use

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

3.7 Use Figure 3 to confirm the requirements of additional protection.

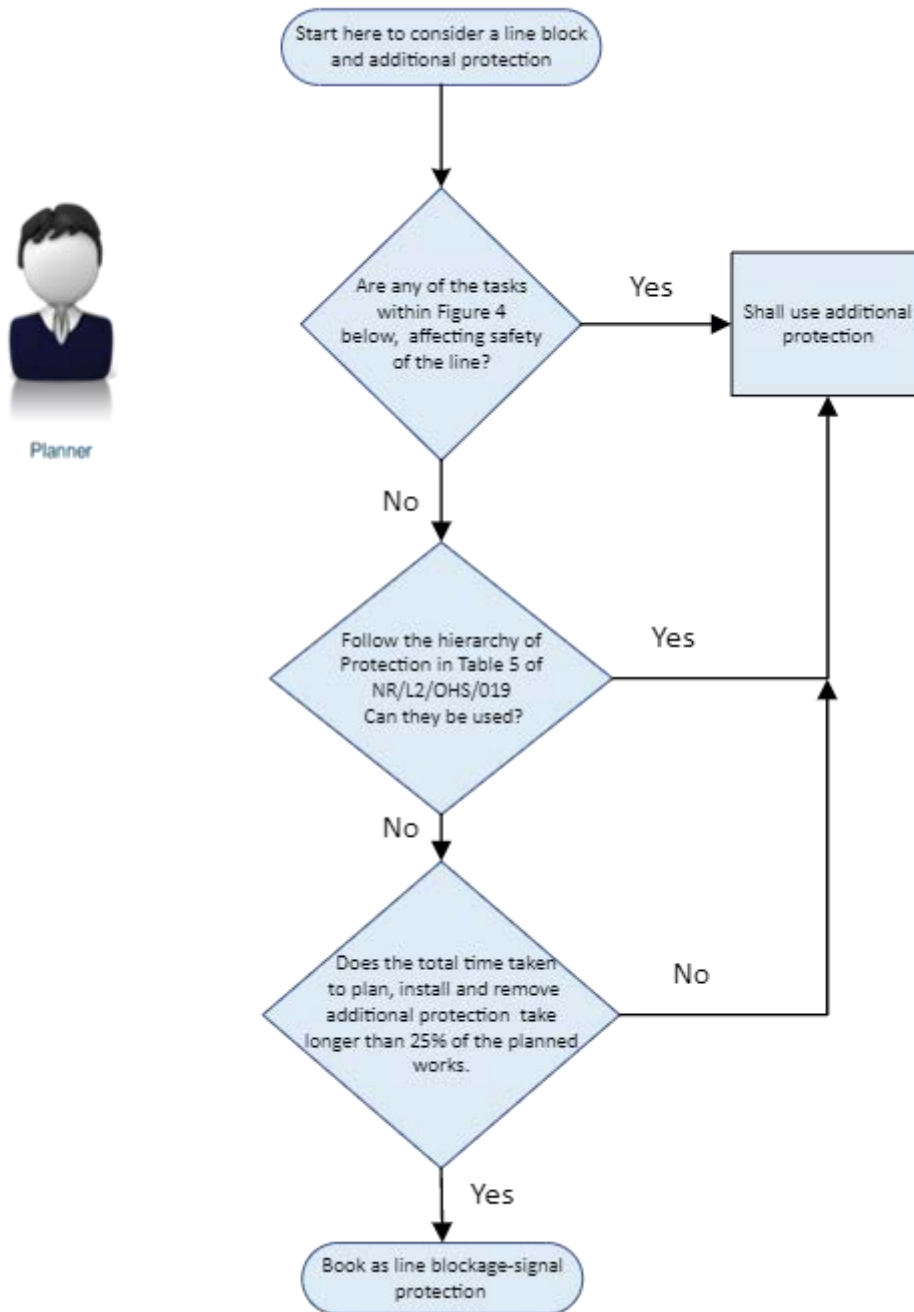
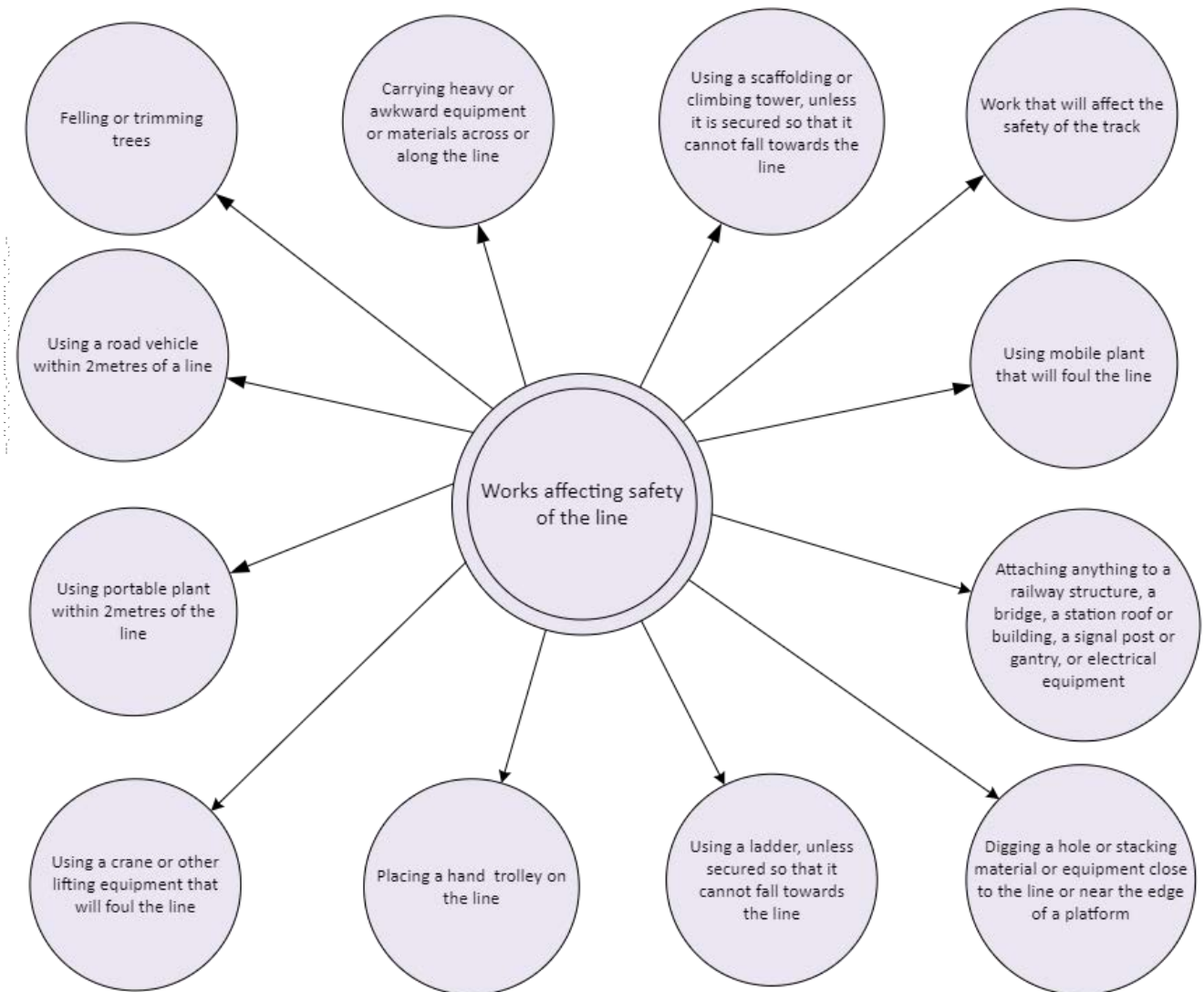


Figure 3: Decision tree on additional protection

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

- 3.8 Use Figure 4 to confirm which works will affect the safety of the line.
- 3.9 Use the Hierarchy of Protection and Warning Systems in Table 5 of NR/L2/OHS/019.



**Figure 4: works that affect safety of the line**

- 3.10 Always use up-to date and verified systems and sources of information when planning in line with Table 3 of NR/L2/OHS/019.
- 3.11 Determine that the protection you arrange includes the access, site of work and egress locations.
- 3.12 Produce a partially completed SWP in line with 4.2.2 of NR/L2/OHS/019.
- 3.13 Include a partially completed **NR3180 Line Blockage Form.**

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

## 4 Verifying the SWP

The person in charge shall:

- 4.1 Review and discuss the partially completed SWP with the planner in line with 4.2.4 of NR/L2/OHS/019.
- 4.2 Check the protection for access, site of work and egress locations are suitable.
- 4.3 Check that the selected SSoW is suitable.
- 4.4 Check additional protection selected is suitable on RT9909 COSS Record of Arrangements and Briefing Form and NR3180.
- 4.5 Presite, confirm they are talking to the correct signaller(s) and that protecting signals will show a red aspect (or route closed by protecting block markers).
- 4.6 Presite, confirm the opening and closing times of signal boxes.
- 4.7 Presite, check location(s) of ground frames, token machines and keyed signals ([SPRS](#)) where appropriate to the SSoW.
- 4.8 Check if any tasks can affect [track circuits](#), level crossings, [axle counters](#) and [insulated block joints](#).
- 4.9 Check when additional resource(s) is/are required.

**NOTE:** Examples include – [Protection Controller](#), [Competent Person \(CP\)](#), Level Crossing Attendant, Site Warden

- 4.10 Check and review the content of NR3180 Line Blockage Form.

## 5 Authorising the SWP

The RM shall:

- 5.1 Not authorise a safe work pack until it has been verified by the person in charge.
- 5.2 Review and authorise in accordance with 4.2.5 of NR/L2/OHS/019.

## 6 The approval and implementation of the safe work pack by the person in charge

6.1 This shall be in accordance with:

- a) NR/L2/OHS/019
- b) Handbook 8 of GERT8000 – IWA, COSS or PC blocking a line.
- c) 4.5, 4.6 and 4.7 of this module.

## 7 Where the line block is to be shared

- 7.1 In sharing a line block, discuss the information in Figure 5 with all parties.
- 7.2 If there are task overlaps or an agreement cannot be reached, then the line block cannot be shared.
- 7.3 The RM of the line block owner shall appoint a PC, unless agreed that another party shall supply.

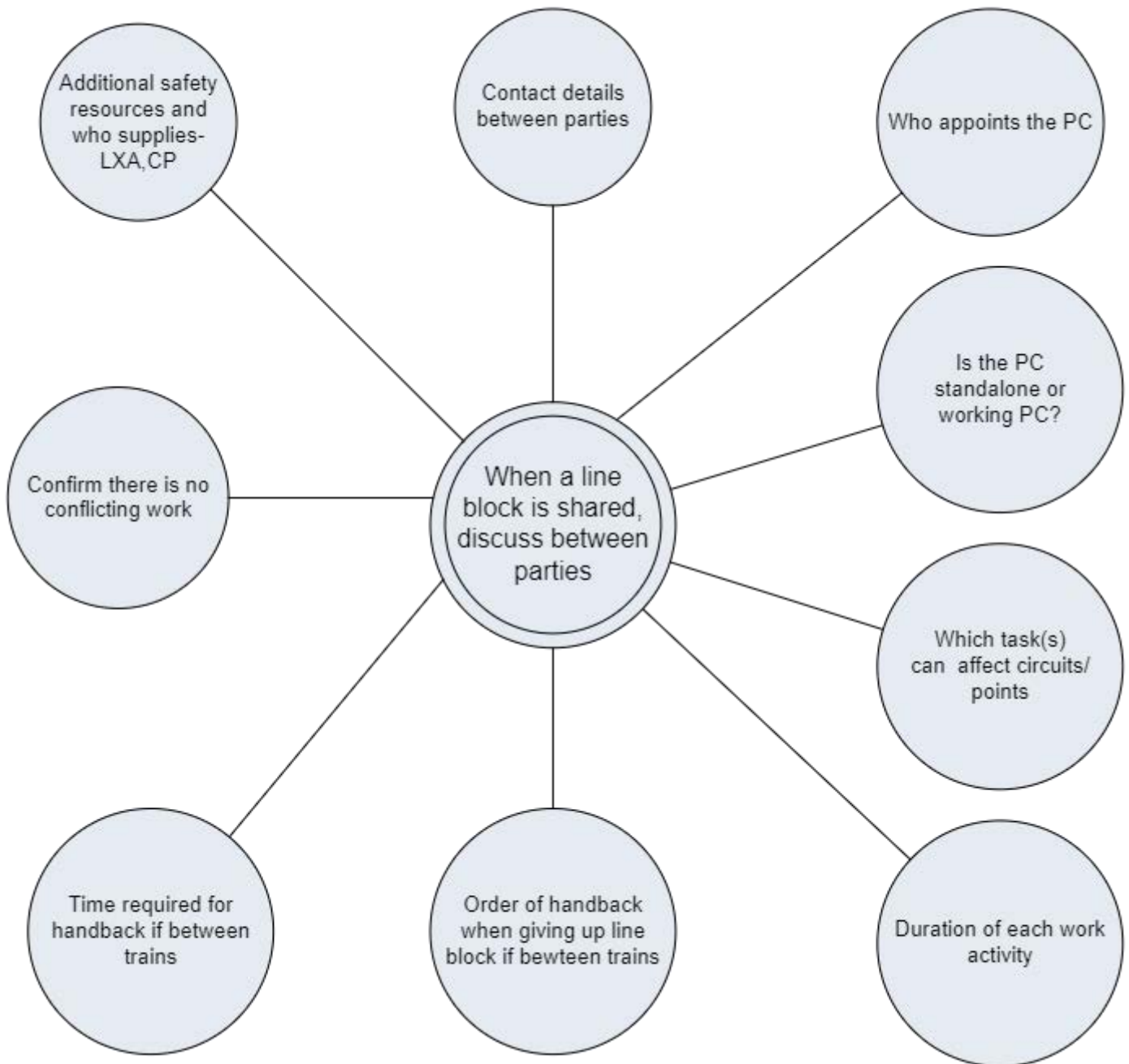


Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

7.4 The PC shall be responsible for operational risk and managing the line block with the signaller(s).

7.5 The PC shall monitor the work progress of each person in charge/IWA through regular communication.

7.6 The PC shall not give up the line blockage until each person in charge/IWA has confirmed they no longer require the line blockage or at the agreed handback time by the Signaller.



**Figure 5: Information to consider in sharing a line block**

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

## 8 Hand back of the line block by person in charge or PC

8.1 Hand back of the line block by person in charge or PC shall be in accordance with

- a) NR/L2/OHS/019;
- b) Handbook 8 of GERT8000 – IWA, COSS or PC blocking a line.

## 9 Warning Systems

The RM shall:

- 9.1. Seek Network Rail or Principal Contractor Company Director approval for selection of:
  - Warning systems-human activated equipment
  - Lookout warning

9.2 Not allow cyclic safe work packs for warning systems and Lookout SSoW unless approved by NR Company Director.

The Planner shall:


- 9.3 Check the National Hazard Directory for warning SSoW Prohibited and restricted sighting areas.
- 9.4 Check the requirements of Handbook 7 GE/RT8000.
- 9.5 Check the requirements of NR/L2/OHS/501 Track Warning Systems.
- 9.6 Create the SWP in accordance with Section 4.2.2 of NR/L2/OHS/019.

The person in charge shall:

- 9.7 Review the requirements of Handbook 7 GE/RT8000.
- 9.8 Review the requirements of NR/L2/OHS/501 Track Warning Systems.

Ref:	NR/L2/OHS/019/03
Issue:	3
Date:	03 June 2023
Compliance date:	02 September 2023

## Appendix A Definitions

Term	Definition
Axle Counters	An axle counter is a system used in railway signalling to detect the clear or occupied status of a section of track between two points.
Between trains protection	Taking sections of track/lines between times where there are no train movements
Competent Person	The person who may place additional protection or key a signal. Must hold IWA as a minimum or COSS if part of a group putting out protection
Complex site of work	Any access, egress, and activity were importing or exporting risk, requires increased levels of planning and delivery to implement the SSoW.
Insulated Block Joints	Keeps track circuits separate for signalling purposes
Protection Controller	Where two or more COSS's/IWAs need a line block at the same place and time, a PC shall take operational control of the line block with the signaller
Published protection	Where a line block has gone through the possession planning process and is published in the WON
Signal Post Replacement Switches (SPRS)	SPRS are provided at some automatic and semi-automatic signals. When operated they place the signal to danger 
Track Circuit	Track circuit is a simple electrical device used to detect the presence/absence of trains on the rails