

## Use of Lookout Working (LOW) in the CRN

Protection Officers are reminded of the requirements of CNPR 711 Using Lookouts when calculating minimum warning time and minimum sighting distance.

### Minimum Warning Time

Minimum Warning Time (MWT) is the minimum time required for a Lookout to warn workers on track about approaching rail traffic.

When using a single Lookout on bidirectional single-track areas to provide warning for both directions, a minimum of 15 seconds must be used for the see time.

The minimum warning time required must be recorded in permanent form on the Worksite Protection Plan and be calculated as follows:

The Minimum Warning Time required = (S + M + 10) seconds		
<b>S</b>	Time it might take a Lookout to <b>see (S)</b> approaching rail traffic and warn workers.	<b>S</b> Seconds
<b>M</b>	Time required to <b>move (M)</b> the workers, tools, equipment, and materials to a safe place.	<b>M</b> Seconds
	Minimum time to be in a <b>Safe Place</b> before rail traffic arrives	<b>10</b> Seconds
	<b>Minimum warning time required</b>	<b>S+M+10 = MWT</b>



#### NOTE

If using a single Lookout in a bidirectional single track area, the see time (S) as detailed above will need to have additional time included for the Lookout to look in both directions. **This must not be less than fifteen (15) seconds.**

### Minimum Sighting Distance

The minimum sighting distance needed to see an approaching rail traffic movement is dependent on the minimum warning time required and the maximum permanent track speed and is determined from the below Table.

Approaching rail traffic will travel over the distances shown, within the times shown at the top of the table, when travelling at the speeds shown on the left.

# SAFETY Alert

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Maximum track Speed Km/h	Sighting distance in metres to provide minimum warning time of:					
	20 sec	25 sec	30 sec	35 sec	40 sec	45 sec
160	890m	1110m	1335m	1555m	1780m	2000m
150	840m	1045m	1250m	1460m	1670m	1875m
140	780m	970m	1170m	1360m	1555m	1750m
130	730m	905m	1085m	1265m	1445m	1625m
120	670m	835m	1000m	1170m	1335m	1500m
110	620m	765m	920m	1070m	1225m	1375m
100	560m	695m	835m	975m	1110m	1250m
90	500m	625m	750m	875m	1000m	1125m
80	450m	555m	670m	780m	890m	1000m
70	390m	485m	585m	680m	780m	875m
60	340m	420m	500m	585m	670m	750m
50	280m	350m	420m	485m	555m	625m
40	230m	280m	335m	390m	445m	500m
30	170m	210m	250m	295m	335m	375m
25	140m	175m	210m	245m	280m	315m
20	120m	140m	170m	195m	225m	250m
15	90m	110m	130m	150m	170m	190m

### Verification of Sighting Distance

To ensure the sighting distance is correct, the Protection Officer must use one of the following methods:

- approved Network Diagrams which identify actual kilometre to prominent infrastructure or locations, or
- physically drive or walk the sighting distance to accurately measure and identify the specific marker for the sighting distance.

### Permanent Speeds

Permanent track speed locations are nominated in the Train Operating Conditions manual.

Where there are multiple permanent speeds where Lookout Working is being used, the highest permanent speed must be used to determine minimum sighting distances.



#### NOTE

- Temporary Speed Restrictions must not be used to determine rail traffic speeds.
- Protection Officers must not use previous rail traffic running speeds to determine rail traffic running speed for the purpose of calculating minimum sighting distances.

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### Example of how Warning Time is Calculated:

The Minimum Warning Time required = (S + M + 10) seconds		
<b>S</b>	Time it might take a Lookout to <b>see (S)</b> approaching rail traffic and warn workers.	5 Seconds
<b>M</b>	Time required to <b>move (M)</b> the workers, tools, equipment, and materials to a safe place.	14 Seconds
	Minimum time to be in a Safe Place before rail traffic arrives	10 Seconds
	<b>Minimum warning time required</b>	Total 29 Seconds

If the maximum permanent track speed for the worksite location is 145 km/h as identified in the Train Operating Conditions manual.

The Minimum Sighting Distance of approaching rail traffic from the above **Table 1** is 1250 metres (rounding up to 30 seconds and 150 km/h).

In this example the Lookout must be positioned to be able to see approaching rail traffic at least 1250m away to give the minimum warning time required.



#### WARNING

Protection Officers must use current versions of safeworking forms.



#### WARNING

If using a single Lookout in a bidirectional single track area, the see time (S) will need to have additional time included for the Lookout to look in both directions. **This must not be less than fifteen (15) seconds.**



#### WARNING

If minimum warning time calculations cannot be satisfied, then Lookout Working must not be used.

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