Division / Business Unit: Engineering & Systems
Function: Operations
Document Type: Guideline

Network Information Book

Upper Hunter 2

Aberdeen (inc) to Werris Creek (exc)

OGW-30-18

Applicability

Hunter Valley

Publication Requirement

Internal / External

Primary Source

Local Appendices North Volume 3
Route Access Standard – Heavy Haul Network Section Pages H2

Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
2.9	24 Oct 2023	Configuration Management Administrator	Corridor Assets & Operational Representatives	Configuration Manager	Head of Operations Standards

Amendment Record

Amendment Version #	Date Reviewed	Clause	Description of Amendment
1.0	23 Mar 2016		First issue
1.1	24 Apr 2017	2.11, 2.12, 2.15	Bank Locomotive Working local control references removed, Willow Tree text & diagram updated, Quirindi wheat siding text updated & Parkville diagram updated

2.0	12 Jan 2018	Various	Colly Creek Wayside Equipment added, Murrurundi yard rationalisation updated, Ardglen quarry siding removed, Chilcotts Creek bank locomotive text updated. Murulla speed sign corrections, Willow Tree signal corrections and drawing legend updated.
2.1	24 Jul 2018	2.1, 2.4 & 2.12	Rouchel Rd level crossing updated at Aberdeen. Wayside equipment added Parkville – Murulla and pedestrian crossing added at Merriwa Rd Willow Tree.
2.2	22 Feb 2019	1.15	Lookout Working details added to new section 1.15 and diagrams. New diagram for Wingen added, speed sign and other corrections on diagrams.
2.3	13 Jan 2020	1.16, 2.11	Bank Locomotive working Chilcotts Creek to Ardglen updated. Drawing legend updated. Speed sign update on Aberdeen diagram. Ardglen and Murulla diagrams updated
2.4	12 Jun 2020	1.5.2, 2.5, 2.11	Interlockings & Sidings section 1.5.2 updated. Murulla location text updated. Bank Locomotive Working Chilcotts Creek to Ardglen updated. Scone & Kankool diagrams updated.
2.5	5 Jan 2021	1.6, 2.14, 2.17	Quipolly level crossing updated. Quirindi diagram updated.
2.6	5 Jul 2021	1.6, 1.15, 1.16, 2.3, 2.7, 2.10, 2.11, 2.14	Level Crossings table, Lookout Working information and drawing legend updated. Bank locomotives text updated. Chilcotts Creek location updated. Quirindi location and diagram updated for points upgrade. Scone, Parkville, Wingen & Pages River diagrams updated. Usage note added to all diagrams.
2.7	9 Jun 2022	1.1, 1.6, 2.1, 2.2, 2.3, 2.4, 2.7, 2.12, 2.13, 2.14	Board Extent & Level Crossings table updated. Parkville & Willow Tree locations updated. Aberdeen, Togar, Scone, Pages River, Braefield & Quirindi diagrams updated.
2.8	11 May 2023	Various	Level Crossings table and Bank Locomotive Working section updated. Togar, Scone, Parkville, Murrurundi & Braefield diagrams updated.
2.9	24 Oct 2023	Various	Level Crossings table updated. Field telephone references removed from various locations. Quirindi and Bells Gate diagrams updated.

Table of Contents

1 General Information

1.1 Board Extent

Aberdeen inclusive 03-3 signal 299.979km to Werris Creek exclusive 15-23 signal 407.270km

This area is controlled by Upper Hunter 2 Network Controller, Network Control Centre North (NCCN).

Contact Numbers:

Phone:	(02) 4902 7911
Train Transit Manager:	(02) 4902 9410
Emergency:	(02) 4902 7971

1.2 Safe Working System

Rail Vehicle Detection (RVD).

1.3 Applicable Rules

The Network Rules and Procedures apply to the sections covered by this Information Book.

1.4 Adjacent Train Control Boards / Centres

ARTC North Control	(02) 4902 7902	Emergency	(02) 4902 7962
ARTC Upper Hunter 1	(02) 4902 7910	Emergency	(02) 4902 7970

1.5 Section Operating Equipment

Emergency Operating Locks (EOL) or Emergency Switch Machine Lock (ESML) for the manual operation of points is located in the Signalling Equipment Hut at each end of the loop or near points.

1.5.1 Motorised Point Machines

Motorised points have a special key located in the point machine cover.

Some of the motorised points in this area are Swingnose points – EXTREME CAUTION must be exercised if points are being manually operated to ensure both parts of the turnout are wound, and to ensure that the whole route through the turnout is set correctly.

Please note if there are 4 keys in EOL box there are 4 sets of points to wind.

Chilcotts Creek
No 51 Points
No 52 Points
No 53 Points

1.5.2 Interlockings and Sidings

Km	Interlocking, Station, Platform or Siding	Length of Passenger Platform in Metres
300.099	Aberdeen	Main No. 1, 152
306.080	Togar	
314.240	Scone	Loop No. 1, 137
315.335	Scone Stock siding	
321.583	Parkville	
338.355	Murulla	
351.489	Murrurundi	Main No. 1, 112
353.879	Pages River	
363.029	Ardglen	
368.080	Kankool	
371.230	Chilcotts Creek	
375.388	Willow Tree	Main No. 1, 67
384.251	Braefield	
392.290	Quirindi	Main No. 1, 137
393.960	Quirindi Wheat siding	
398.290	Bells Gate	
401.690	Quipolly	

1.6 Level Crossings

ALCAM ID is the number allocated from the Australian Level Crossing Assessment Model used by rail and road managers across Australia. It's a national database for assessing risk which is overseen by a National Committee and supported by the Rail Industry Safety Standards Board (RISSB).

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
452	578	Rouchel Road Aberdeen	Main North	301.574	Road	Public	Half Boom Flashing Lights
453	579	Segenhoe Road Aberdeen	Main North	303.395	Road	Public	Primary Flashing Lights
1807		Turanville Road Togar	Main North	308.612	Road	Public	Stop Signs
3936		Scone Lxing (St Aubins Without)	Main North	312.152	Road	Private	Stop Signs
3937		Scone Lxing (St Aubins House)	Main North	312.836	Road	Private	Stop Signs
		Kingdon Street Scone	Main North	314.002		Emergency	
1504		Kingdon Street Scone	Main North	314.010	Pedestrian	Public	Maze
454		Liverpool Street Scone (City)	Main North	314.225	Pedestrian	Public	Maze
454	580	Liverpool Street Scone	Main North	314.230	Road	Public	Half Boom Flashing Lights
454		Liverpool Street Scone (Country)	Main North	314.235	Pedestrian	Public	Maze
455	581	New England Highway Scone	Main North	314.828	Road	Public	Half Boom Flashing Lights
3938		Muffet Street Scone	Main North	315.542		Emergency	
456		Cemetery Road Scone	Main North	317.141	Road	Public	Stop Signs
1902		Smith Road Parkville	Main North	318.775	Road	Public	Stop Signs
457	589	Mareeba Road Parkville	Main North	321.549	Road	Public	Half Boom Flashing Lights
1903		Banool Road Parkville	Main North	323.639	Road	Public	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3939		Parkville Lxing (Bridle Vale)	Main North	327.280	Road	Private	Stop Signs
3940		Parkville Lxing (Spring Vale)	Main North	329.111	Road	Private	Stop Signs
458		Gateleys Road Parkville	Main North	331.751	Road	Public	Half Boom Flashing Lights
459		Livingston Street Murulla	Main North	332.917	Road	Public	Stop Signs
		ARTC Maintenance Crossing	Main North	334.990	Access Road	Corridor use only	Stop signs
460		Murulla Crossing Loop	Main North	339.391	Road	Private	Stop Signs
461	582	Old North Road / White Street Blandford	Main North	345.632	Road	Public	Primary Flashing Lights
3942		Blandford Lxing (Blandford Stud)	Main North	348.322	Road	Private	Stop Signs
3943		Blandford Lxing (Blandford Stud)	Main North	349.047	Road	Private	Stop Signs
3944		Blandford Lxing (Blandford Stud)	Main North	350.897	Road	Private	Stop Signs
462	583	Halls Creek Road Murrurumdi	Main North	352.701	Road	Public	Primary Flashing Lights
3946		Murrurundi Service Lxing	Main North	356.490	Road	Private	Stop Signs
3947		Murrurundi Lxing Arnotts)	Main North	358.501	Road	Private	Stop Signs
3948		Murrurundi Lxing (Arnotts)	Main North	359.682	Road	Private	Stop Signs
463	584	High Street Ardglen	Main North	363.360	Road	Public	Half Boom Flashing Lights
465		Glenyalla Road Kankool	Main North	368.990	Road	Public	Full Boom Flashing Lights
		Merriwa Road Willow Tree	Main North	375.360	Pedestrian	Public	Pedestrian Maze
466	585	Merriwa Road Willow Tree	Main North	375.370	Road	Public	Half Boom Flashing Lights

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3950		Braefield Lxing (Kelso Stud)	Main North	378.357	Road	Private	Stop Signs
3951		Braefield Lxing (Warrah Creek)	Main North	379.866	Road	Private	Stop Signs
3952		Braefield Lxing (Batterhams)	Main North	382.541	Road	Private	Stop Signs
3953		Braefield Lxing (Tooratoo)	Main North	383.813	Road	Private	Stop Signs
467		Sullings Lane Braefield	Main North	386.374	Road	Public	Stop Signs
468		Callaghans Lane Braefield	Main North	388.013	Road	Public	Stop Signs
469	586	Henry Street Quirindi	Main North	392.378	Road	Public	Half Boom Flashing Lights
470	587	Nowland Street Quirindi	Main North	393.255	Road	Public	Half Boom Flashing Lights (duplicated)
471		Bells Gate Road Quirindi	Main North	397.709	Road	Public	Stop Signs
472	560	Lowes Creek Road Quipolly	Main North	401.861	Road	Public	Half Boom Flashing Lights
3954		Quipolly Lxing (Railway View)	Main North	405.615	Road	Private	Stop Signs
3955		Quipolly Lxing (Hillview)	Main North	406.550	Road	Private	Stop Signs
473	588	Single Street Werris Creek	Main North	408.995	Road	Public	Primary Flashing Lights

1.7 Maximum Permitted Speeds and Permanent Speed Restrictions

Refer the Route Access Standard - Heavy Haul Network Section Pages H2 for all speed information.

1.8 Maximum Train Length

The maximum train length is 1350m.

1.9 Structure Clearances

Refer Route Access Standards for Rolling Stock Outlines.

1.10 Tunnel Locations

Section / location	Name of Tunnel	Length of tunnel in metres	km from Sydney
Murrurundi – Ardglen	Ardglen	487	362.329 – 362.817

1.11 Communications

The National Train Communications System (NTCS) is the Primary communications system for the ARTC controlled rail network and is mandatory for all operators to operate their locomotives using a NTCS ICE (In-Cabin Equipment) Unit as the primary communications device.

A standard ICE unit is installed with the following components

- Telstra NextG™ transceiver
- Iridium satellite transceiver
- UHF Radio
- GPS

The ICE unit primary communications is via the Telstra NextG™ and backup communications is provided via the Iridium Satellite network. The ICE unit will automatically call the appropriate Network Control Centre (Broadmeadow or Junee) based on GPS location when the routine and emergency buttons are pressed.

The UHF radio is used for the Local train Radio - Train to Train and train to track Side communications.

UHF Local Train Radio (LTR) frequency details

Channel Name WB

Frequency: 450.050 MHz (UHF),

Bandwidth: 12.5 KHz,

EIRP: 41W (remote/low density areas), 8.3W (medium & high density areas)

Tx CTCSS: 173.8 Hz

Rx CTCSS: NA

Selcall: disabled

Channel Name Mountain Radio (WB)

Frequency: 450.050 MHz (UHF),

Bandwidth: 12.5 KHz,

EIRP: 41W (remote/low density areas), 8.3W (medium & high density areas)

Tx CTCSS: 103.5 Hz

Rx CTCSS: NA

Selcall: disabled

Alternate Communication for this section is by mobile or satellite phones.

1.12 Wayside Monitoring Systems

Parkville – Murulla (HBD, HWD) 331.430km

Willow Tree – Braefield (HBD, HWD, DED) 379.860km

HBD – Hot Bearing Detector

HWD – Hot Wheel Detector

DED – Dragging Equipment Detector

1.13 Ruling Gradients

Down	1 in 40
Up	1 in 40

1.14 Curve and Gradient Data

For all Curve and Gradient data, refer to the ARTC Internet.

https://extranet.artc.com.au/eng_network-config_cd.html

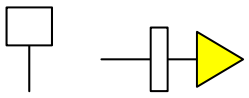
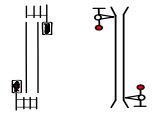
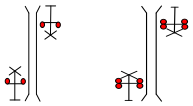
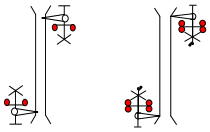
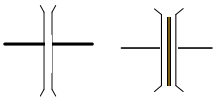
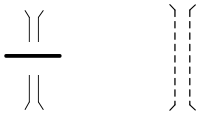
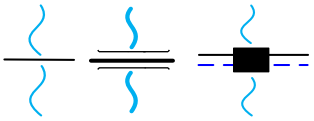
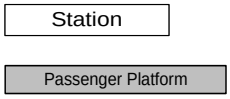
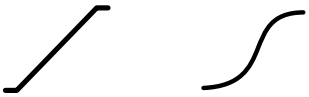
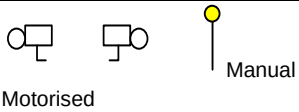
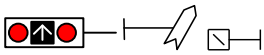
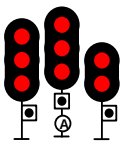
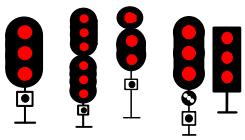
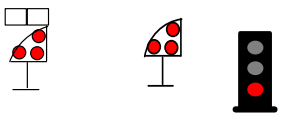
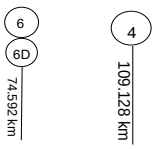
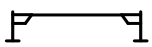
1.15 Lookout Working Hazardous Areas

The below list of locations are hazardous for Lookout Working and may require an additional Lookout or a higher level of protection to undertake work in these areas.

The Protection Officer is responsible for conducting a safety assessment and confirming that Lookout Working is suitable for the work to be performed at the location. This may require the use of an additional Lookout to ensure adequate minimum warning time to easily reach a Safe Place. If the safety assessment determines that Lookout Working is not suitable a higher level of protection must be applied.

Area	KM From	KM To	Line	Line Direction	Up/Down	Reason Unsuitable
Aberdeen to Togar	300.700	306.200	Single Main	Bi-Directional	Both	Tight curves, bridges, steep grade
Togar to Parkville	306.200	311.000	Single Main	Bi-Directional	Both	Cutting obstructs viewing distance
Togar to Parkville	311.000	318.500	Single Main	Bi-Directional	Both	Tight curves
Parkville to Murulla	323.000	327.000	Single Main	Bi-Directional	Both	Tight curves
Parkville to Murulla	327.000	334.500	Single Main	Bi-Directional	Both	Tight curves
Parkville to Murulla	334.500	335.500	Single Main	Bi-Directional	Both	Cutting obstructs viewing distance
Parkville to Murulla	335.500	337.000	Single Main	Bi-Directional	Both	Tight curves
Parkville to Murulla	337.000	338.000	Single Main	Bi-Directional	Both	Cutting obstructs viewing distance
Murulla to Murrurundi	338.000	348.500	Single Main	Bi-Directional	Both	Tight curves, bridges, & cuttings
Murulla to Murrurundi	348.500	351.000	Single Main	Bi-Directional	Both	Cutting obstructs viewing distance
Murrurundi to Chilcotts Creek	351.000	374.600	Single Main	Bi-Directional	Both	Tight curves from Murrurundi to South Willow Tree
Chilcotts Creek to Willow Tree	375.500	377.500	Single Main	Bi-Directional	Both	Tight curve out of yard
Braefield to Quirindi	388.700	389.500	Single Main	Bi-Directional	Both	Curve through a cutting with limited safe places.
Quirindi to Bells Gate	395.800	397.000	Single Main	Bi-Directional	Both	Limited safe places in cutting.

1.16 Drawing Legend

	Standard gauge track		Dual gauge track
	Advisory Sign or Location Sign		Speed sign
	Pedestrian Crossing		Passive Protection Level Crossing
	Active Protection Level Crossing – Flashing Lights		Active Protection Level Crossing – Lights and Boom
	Bridge or Overpass		Underpass
	River/Creek or Significant river bridge or Viaduct		Station or Platform
	Tunnel		Crossover
	Turnout		Catchpoint
	Derail		Points Operating Mechanism
	Point Indicator		Mechanical Frame
	Automatic Signals		Controlled Signals
	Dwarf Signals		Signal number reference
	Distant Signal		Repeater Signal
	Overheight Detectors	>> <<	Wayside Equipment

2 Locations and Sections Information

2.1 Aberdeen (ADN)

General Arrangements

Aberdeen is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 637 metres

Operation of Points and Signals

The points and signals at Aberdeen are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operation of Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

An SL-locked cabin is provided adjacent to Nos. 51 and 52 points and contains ESML equipment.

Rouchell Road Level Crossing

Type F flashing lights bells and half-boom barriers are provided at Rouchell Road level crossing at 301.574 km.

The warning equipment is automatically controlled by track circuit for Down and Up direction rail traffic. Standard Type F level crossing trackside signs are located at 300.224km in the Down direction and 303.378km in the Up direction.

If it becomes necessary to hold rail traffic at signal No. 03-11M or No. 03-11L after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Segenhoe Road Level Crossing

Type F flashing lights and warning bells are provided at Segenhoe Road level crossing at 303.381 km.

The warning equipment is automatically controlled by track circuit for Down and Up rail traffic.

Emergency keys for level crossings

The emergency keys for the type F level crossing warning equipment at Rouchell Road and Segenhoe Road level crossings are located at the ARTC Provisioning Centre at Muswellbrook.

LOOKOUT WORKING HAZARDOUS AREA

03-3 DIST 298.376 km
298.405 km
MK330 DIST 298.503 km
299.660 km
03-3 299.979 km
X25 X50 300.050 km
300.099 km
300.120 km
03-12M 03-12L 300.178 km
300.422 km
300.662 km
300.700 km
03-11M 03-11L 300.827 km
300.831 km
300.902 km
03-4 301.072 km
301.574 km
115 160 301.900 km
302.028 km
110 125 302.200 km
302.420 km
03-4 DIST 302.614 km
110 125 302.627 km
115 160 302.897 km

TO KOOLBURY

03-3 DIST
MK330 DIST
03-3
51
03-12M
03-12L
MAIN LINE
LOOP LINE
03-11M
03-11L
52
03-4
03-4 DIST

TO TOGAR

UNDERPASS
CREEK
PERTH STREET
300.150 km
X50
X25
UP LOOP
GRAEME STREET
ROUCHELL ROAD
HUNTER RIVER

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
4	7/3/22	Speed signs updated
3	15/1/20	Loop speed sign added at 300.178 km
2	22/2/19	Lookout working notation added and speed signs updated
1	24/7/18	Rouchel road level crossing updated & signal km corrections

ARTC
NIB-T0418
Sheet No 1 of 1
Scale NTS
Sheet Size A3
TITLE
ABERDEEN

2.2 Togar (TGR)

General Arrangements

Togar is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1350 metres

Operation of Points and Signals

The points and signals at Togar are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

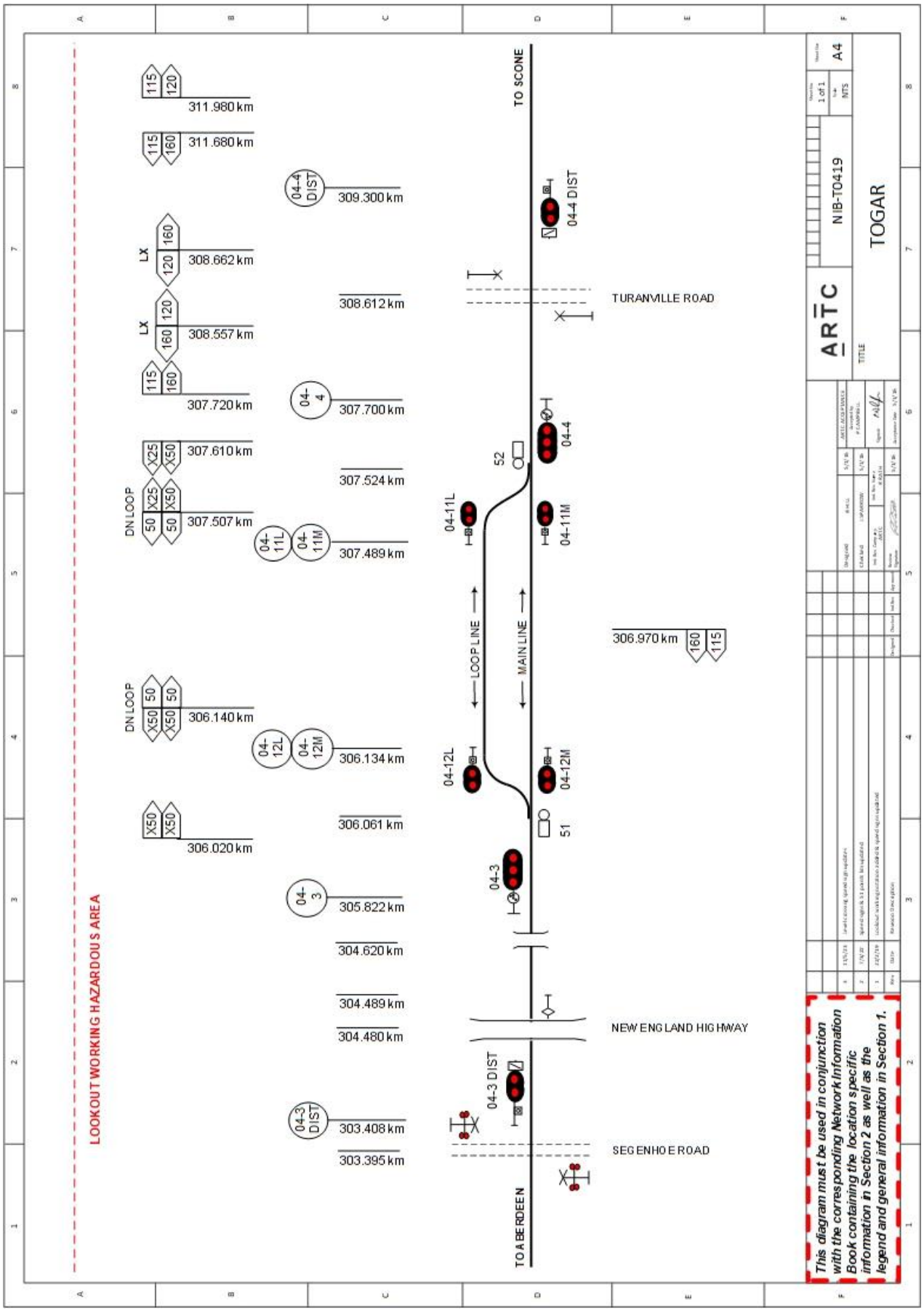
Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

A cabin is provided adjacent to Nos. 51 and 52 points and contains a locked ESML cabinet.


TO SCONE
TO ABERDEEN
LOOKOUT WORKING HAZARDOUS AREA
LOOP LINE
MAIN LINE
TURANVILLE ROAD
NEW ENGLAND HIGHWAY
SEGENHOE ROAD
311.980 km
311.680 km
309.300 km
308.662 km
308.612 km
308.557 km
307.720 km
307.700 km
307.610 km
307.524 km
307.507 km
307.489 km
306.970 km
306.140 km
306.134 km
306.061 km
306.020 km
305.822 km
304.620 km
304.489 km
304.480 km
303.408 km
303.395 km
04-4 DIST
04-4
04-11L
04-11M
04-12L
04-12M
04-3
04-3 DIST
52
51
DN LOOP
LX
ARTC
NIB-T0419
TOGAR
TITLE
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.3 Scone (SCN)

General Arrangements

Scone is a Rail Vehicle Detection location controlled from Network Control Centre North.

Passenger platform is located on the loop line

Loop length 380 metres

Stock siding 317 metres

Operation of Points and Signals

The points and signals at Scone are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operation of Power-operated Points in an Emergency

Nos. 51 and 52 points worked from the NCCN are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

Traffic Hut EOL

ESML is provided on traffic hut adjacent to No 51 points.

EOL is provided on traffic hut adjacent to No 52 points.

Ground Frames

Frame G

Frame G is located on the Down side of the main line adjacent to the points, and is unlocked by a key from releasing switch G, which is located adjacent to frame G.

Releasing switch G is electrically released from Network Control Centre North.

Emergency release keys

Emergency release keys are provided to release frame G if there is a failure of the respective releasing switch. The keys are located in release locks in the traffic room.

When any of the keys is taken from the release lock, it will place and maintain all protecting signals at Scone at stop.

New England Highway (Kelly Street) level crossing

Type F flashing lights and bells, and half-boom barriers are provided at New England Highway (Kelly Street) level crossing at 314.828km.

The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on either side of the crossing.

If a train closely approaches Up home signal No. 05-4 or Down second home signals Nos. 05-11M / 05-11L at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at signal No. 05-4, No. 05-11M or No. 05-11L after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Liverpool Street level crossing

Type F flashing lights and bells, and half-boom barriers are provided at Liverpool Street level crossing at 314.230km.

The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on either side of the crossing.

If a train closely approaches Up starting signals Nos. 05-12M / 05-12L or Down home signal No. 05-3 at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed, but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at signal No. 05-12M, No. 05-12L or No. 05-3 after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Emergency Keys for level crossings

The emergency keys for the type F level crossing warning equipment at Liverpool Street and New England Highway (Kelly Street) level crossings are located at the ARTC Provisioning Centre at Muswellbrook.

Emergency Vehicle Access Level Crossings

Kingdon Street (314.010km) and Muffet Street (315.542km).

Passive level crossing controls with STOP roadside warning signs immediately before the level crossing, and ARTC boundary locked gates, with the keys held by the local Scone Council Emergency Services Officer.

In the event of an emergency incident or a delayed / stopped train movement through Scone that activates the level crossings within the township where both Liverpool Street and Kelly Street (New England Highway) are impacted at the railway level crossings, emergency vehicle access is provided at Kingdon Street 314.010km and Muffet Street 315.542km.

When the Network Controller at the NCCN receives an emergency call that stops a train over both Liverpool Street and Kelly Street (New England Highway) level crossings preventing the movement of road traffic, the Network Controller must;

- Determine how long the crossings will be closed to road traffic; and
- Advise the Emergency Service by ringing 000 or VKG (Police Radio), Ambulance Control Centre, Fire and Rescue NSW Control Centre.

The Emergency Service will contact the Scone Council Emergency Services Officer on 6540 1199 and advise of the estimated period of the road closure.

If the road closure is going to be for an extended period of time, i.e. more than 20 minutes, the following procedure will be implemented.

Note: No general public road motor vehicles or pedestrians are permitted to use the Emergency Vehicle access level crossing at Kingdon Street and Muffet Street.

Emergency Services

Emergency Services, Council / SES representative must contact the Network Controller at NCCN advising that the Emergency Services Vehicle access route is to be activated at the Kingdon Street and / or Muffet Street crossings.

Police or Scone Council / SES representative must;

- Obtain authorisation from the Network Controller to unlock gates,
- Unlock the gates and man the gates until Police arrive
- Advise the Network Controller when Emergency Services Vehicles are to use the crossing and when the vehicles are clear of the crossings.

Police or Scone / SES representative to lock the gates to prevent unauthorised use when the crossing is no longer required for use by Emergency Service Vehicles.

Police or Scone / SES representative must advise the Network Controller that the gates are locked and the crossing is no longer required for use by Emergency Service Vehicles.

NETWORK CONTROLLER

When advised by the Emergency Services representative (Police or Scone Council / SES) that the level crossing is to be used for Emergency Services Access;

Make sure there are no rail traffic movements

Apply blocking facilities to prevent access to the area

Authorise the Emergency Services representative to unlock the gates and use the level crossings.

When advised by the Emergency Services representative (Police or Scone Council / SES) that the level crossing is no longer required for use;

- Obtain an assurance that the access gates are secured to prevent unauthorised access
- Remove blocking facilities

LOOKOUT WORKING HAZARDOUS AREA

115 / 145 — 312.140 km
05-3 DIST — 312.152 km
312.168 km
80 / 80 — 312.576 km
110 / 110 — 312.836 km
313.160 km
313.400 km
75 / 80 — 313.460 km
75 / 85 — 313.980 km
05-3 — 314.010 km
X25 / X25 — 314.102 km
314.180 km
314.230 km
50 / 55 — 314.240 km
314.278 km
05-12M / 05-12L — 314.330 km
314.393 km
314.709 km
05-11M / 05-11L — 314.750 km
X25 / X25 — 314.800 km
314.810 km
314.828 km

TO TOGAR
05-3 DIST
05-3
05-12M
MAIN LINE
LOOP LINE
51
52
05-12L
05-11M
05-11L
PLATFORM
PRIVATE CROSSING
PRIVATE CROSSING
NEW ENGLAND HIGHWAY
KINGDON STREET Emergency Crossing
LIVERPOOL STREET
314.356 km
X25 25 / X25 25
UP LOOP
314.750 km
25 X25 / 25 X25
UP LOOP
NEW ENGLAND HIGHWAY

LOOKOUT WORKING HAZARDOUS AREA

05-4 — 314.964 km
315.281 km
50 / 55 — 315.335 km
115 / 160 — 315.450 km
05-13 — 315.525 km
315.542 km
315.572 km
LX 160 120 — 317.091 km
317.141 km
LX 160 160 — 317.191 km
05-2 — 317.224 km
318.500 km
318.775 km
06-3 DIST — 318.912 km
05-2 DIST — 318.930 km

MAIN LINE
FRAME G
2G
STOCK SIDING
05-4
05-13
SHEEP & CATTLE RACES
MUFFET STREET Emergency Crossing
CBMETERY ROAD
SMITH ROAD
05-2
DIST 06-3
05-2 DIST
TO PARKVILLE

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
5	11/5/23	Level crossing speed sign updates
4	7/7/21	Signal 05-3 DIST, private crossing & New England Highway bridge added. Stop signs added to level crossings.
3	7/1/21	Signal 05-3 km updated
2	19/5/20	Stock siding points km corrected
1	22/2/19	Lookout working notation added & speed signs updated

ARTC
NIB-T0420
TITLE
SCONE
Sheet No 1 of 1
Scale NTS
Sheet Size A3

2.4 Parkville (PVL)

General Arrangements

Parkville is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1420 metres

Operation of Points and Signals

The points and signals at Parkville are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

EOL are provided adjacent to Nos 51 and 52 points.

Mareeba Road Level Crossing

Type F level crossing protection including flashing lights, audible warning devices, half boom barriers and a pedestrian crossing with swing gates is provided at Mareeba Road 321.549km.

Gateleys Road Level Crossing

Type F level crossing protection including roadside flashing lights, audible warning device and half-boom barriers are provided at Gateleys Road at 331.751km.

The Gateleys Road level crossing emergency and test keys are located at the ARTC Provisioning Centre at Muswellbrook.

NOTE: Road / Rail vehicles must not be placed on or off at the Gateleys Road level crossing.

Gateleys Road Level Crossing Operation:

Gateleys Road level crossing is activated by axle counter track circuits. Axle counter track circuits are displayed on the Phoenix Train Control system as additional text. When an axle counter track is clear, the associated text will display steady white text. When an axle counter track circuit is occupied or in a failed condition the associated text will display steady red text. The Gateleys Road level crossing text on the Phoenix Train Control system will flash red when the level crossing warning equipment is activated.

Gateleys Road Level Crossing Axle Counter Reset Procedure:

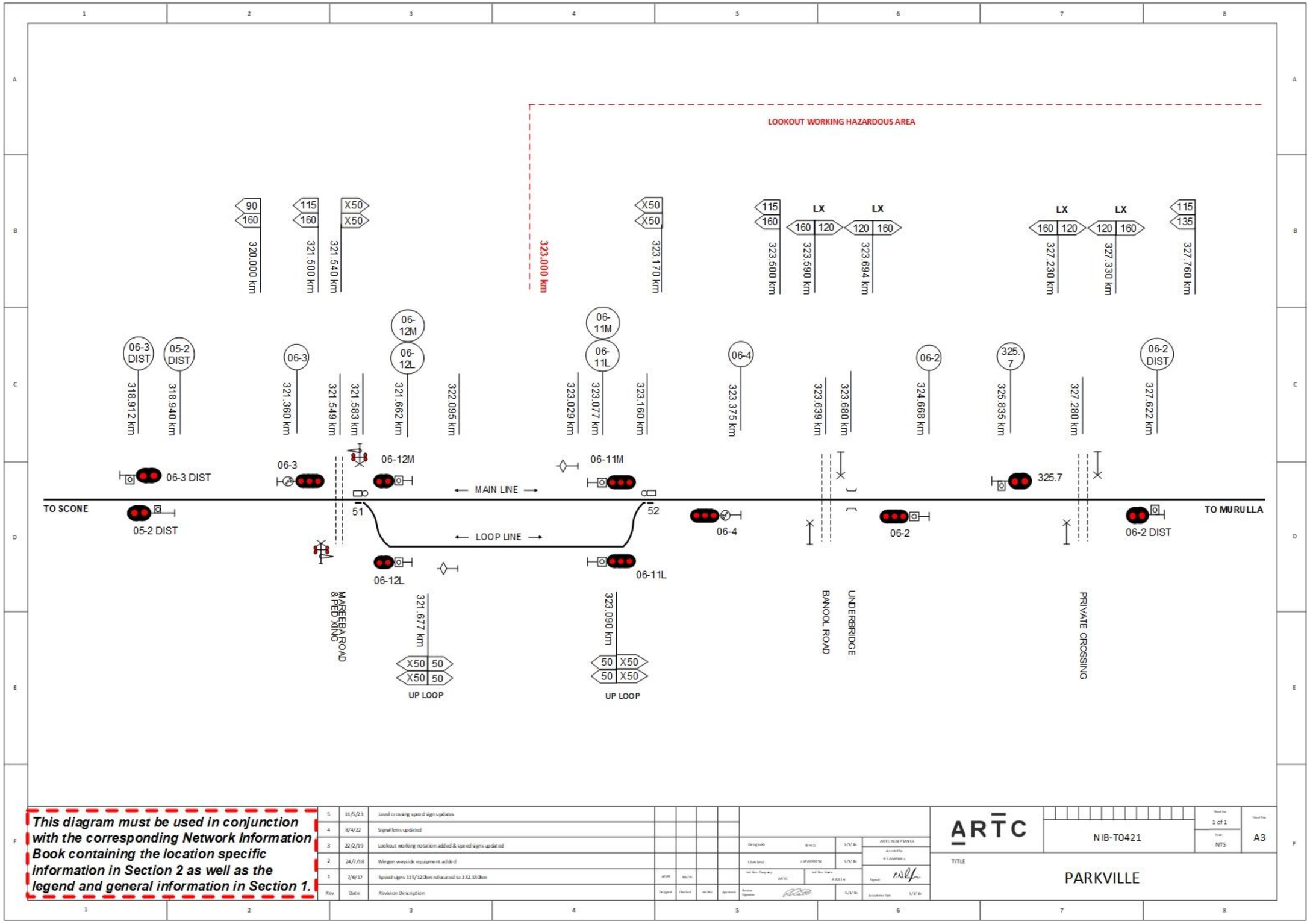
- Network Controller identifies the axle counter track circuit as failed showing occupied on the Phoenix Train Control system.
  NOTE: The Phoenix display will show the Microtrax track section over the level crossing as unoccupied.
- Network Controller contacts the Rail Traffic Crew of the last train/ track vehicle through the section to verify that it is clear and complete of the level crossing

- When the last train/track vehicle is confirmed as clear and complete, the Network Controller requests an axle counter reset on the axle counter system in the Phoenix Train Control system
- If the reset is successful, the axle counter track circuit will indicate clear with steady white text displayed on the Phoenix Train Control system
- If the axle counter track circuit does not clear, the Network Controller must ask the Signals Maintenance Representative to attend the location and apply a pre-reset
- The Signals Maintenance Representative must confirm with the Network Controller that the axle counter track circuit is clear of rail traffic, the axle counter is operational and applies a pre-reset followed by a Network Controller reset.

Wingen Wayside Equipment

A Hot Bearing Detector (HBD)/Hot Wheel Detector (HWD) system are located on the main line in the Parkville to Murulla section at 331.430km.

The HBD/HWD systems will alert drivers of Hot Bearing / Hot Wheel via the WB Radio 450.050Mhz system. The Network Controller at Network Control Centre North will receive an alert and confirm status with the train crew.



This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
5	11/5/23	Level crossing speed sign updates
4	8/4/22	Signal Nos updated
3	22/2/19	Lookout working notation added & speed signs updated
2	24/7/18	Wingen wayside equipment added
1	7/6/17	Speed signs 115/120km relocated to 332.330km

ARTC

NIB-T0421

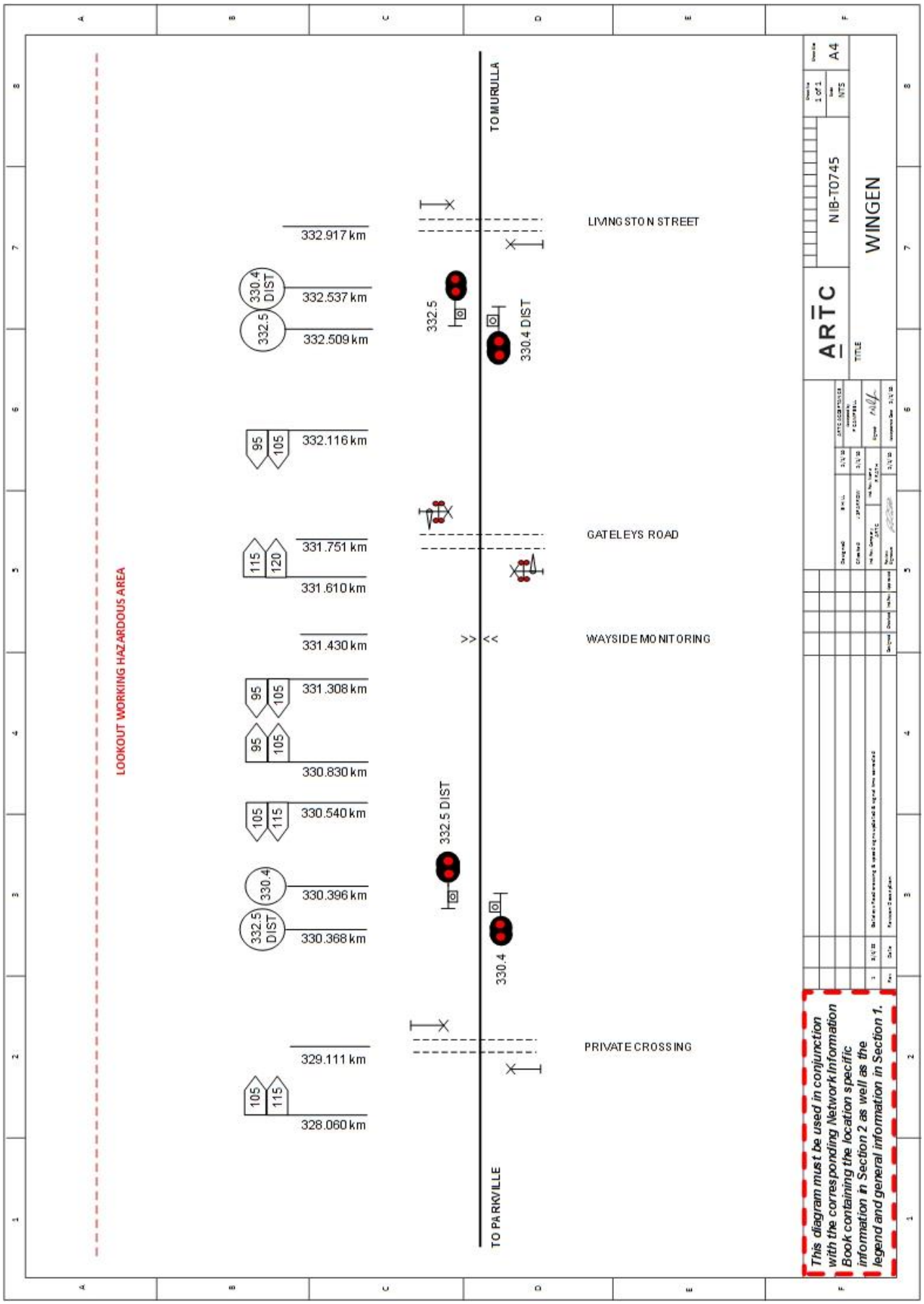
1 of 1

NTS

A3

TITLE

PARKVILLE


TO MURULLA
LIVINGSTON STREET
332.917 km
330.4 DIST
332.5
332.537 km
332.509 km
332.5
330.4 DIST
95
105
332.116 km
GATELEYS ROAD
115
120
331.751 km
331.610 km
331.430 km
WAYSIDE MONITORING
95
105
331.308 km
95
105
330.830 km
105
115
330.540 km
332.5 DIST
330.4
330.396 km
332.5 DIST
330.368 km
330.4
PRIVATE CROSSING
329.111 km
105
115
328.060 km
TO PARKVILLE
LOOKOUT WORKING HAZARDOUS AREA
NIB-T0745
WINGEN
A4
TITLE
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.5 Murulla (MRL)

General Arrangements

Murulla is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1359 metres

Operation of Points and Signals

The points and signals at Murulla are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

Nos. 51 and 52 points worked from the Network Control Centre North are electrically power-operated.

If these points fail to operate correctly, a transit alarm will sound and the signaller and the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

Emergency Operation Lock (EOL) cabinets are provided adjacent to 51 and 52 points.

The Signals maintenance representative must be promptly advised of the circumstances.

LOOKOUT WORKING HAZARDOUS AREA

334.990 km
336.459 km
07-3 DIST
336.680 km
07-3
338.139 km
X50 X50
338.330 km
338.355 km
07-12M 07-12L
338.439 km
115 120
338.560 km
95 105
338.820 km
95 105
339.391 km
339.612 km
07-11M 07-11L
339.811 km
339.869 km
X50 100 X50 110
339.910 km
07-4
340.126 km

07-3 DIST
07-3
07-12M
07-11M
AA
TO PARKVILLE
MAIN LINE
LOOP LINE
51
52
07-4
BB
07-12L
07-11L
MAINTENANCE CROSSING
NEW ENGLAND HIGHWAY
PRIVATE CROSSING
338.408 km
339.827 km
X50 50 X50 50 UP LOOP
50 X50 50 X50 UP LOOP

LOOKOUT WORKING HAZARDOUS AREA

100 110 340.520 km
95 100 340.820 km
07-4 DIST 341.839 km
95 100 342.160 km
115 135 342.460 km
115 135 342.990 km
343.392 km
345.5 DIST 343.532 km
115 135 343.995 km
100 110 344.290 km
100 110 344.672 km
344.810 km
115 135 345.110 km
345.5 345.420 km
345.632 km
345.6 345.657 km
115 135 346.550 km
110 120 346.850 km
346.993 km
110 120 347.277 km
345.6 DIST 347.269 km
347.322 km

AA
345.5 DIST
345.5
MURRURUNDI
07-4 DIST
345.6
TO MURRURUNDI
345.6 DIST
BB
UNDERBRIDGE
OLD NORTHERN RD
MURULLA CREEK

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
3	7/2/20	Signal 4 km corrected
2	22/2/19	Lookout working notation added & speed signs updated
1	12/1/18	Speed signs updated to drivers diagram

Designed B HILL 5/1/16 — Checked J SPARROW 5/1/16 — Ind. Rev Company ARTC — Ind. Rev. Name R RATH — Review Signature — 5/1/16
ARTC ACCEPTANCE — Accepted by: P CAMPBELL — Signed: — Acceptance Date 5/1/16

ARTC

NIB-T0422

Sheet No 1 of 1 — Sheet Size A3 — Scale NTS

TITLE

MURULLA

2.6 Murrurundi (MDI)

General Arrangements

Murrurundi is a Rail Vehicle Detection location controlled from Network Control Centre North.

Passenger platform is located on main line.

Loop length: 883 metres

Siding: 400 metres

Operation of Points and Signals

The points and signals at Murrurundi are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

An SL-locked cabin is provided adjacent to Nos. 51 and 52 points and contains ESML equipment.

Ground Frames

Frame B

Frame B is located on the Down side of the Loop line adjacent to the points and provides access to the siding.

Frame B is unlocked by a key from releasing switch B, which is located adjacent to frame B.

Releasing switch B is electrically released by Network Control Centre North.

Emergency release keys

Emergency release keys are provided to release frame B if there is a failure of the releasing switch. The keys are located in release locks in the relay room, which is located on the Down side of the Loop line opposite frame B points.

When any of the keys is taken from the release lock, it will place and maintain all protecting signals at Murrurundi at stop.

Halls Creek Road Level Crossing

Type F flashing light highway signals and warning bells are provided at Halls Creek Road level crossing at 352.708km.

The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on either side of the crossing.

If a train closely approaches Up home signal No. 08-4 or Down starting signals Nos. 08-11M / 08-11L at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at signal No. 08-4, No. 08-11M or No. 08-11L after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Emergency Keys for Level Crossings

The emergency keys for the type F level crossing warning equipment at Old Northern Road level crossing at Blandford and Halls Creek Road at Murrurundi are located at the ARTC Provisioning Centre at Muswellbrook.

LOOKOUT WORKING HAZARDOUS AREA

346.993 km
345.6 DIST
347.269 km
347.322 km
MURULLA CREEK
115 145
347.600 km
08-1 DIST
348.085 km
348.320 km
OCCUPATION CROSSING
349.046 km
OCCUPATION CROSSING
08-1
349.590 km
115 145
349.850 km
115 125
350.138 km
115 125
350.490 km
115 145
350.790 km
350.848 km
CAMPBELL'S CREEK
350.897 km
OCCUPATION CROSSING
08-14
351.160 km
08-3
351.360 km
X40 X45
351.486 km
351.489 km
DN LOOP
X40 40 X45 45
351.555 km
08-12L
08-12M
351.564 km

MURRURUNDI
TO MURULLA
345.6 DIST
08-1 DIST
08-1
08-14
08-3
51
08-12L
AA
08-12M
BB

LOOKOUT WORKING HAZARDOUS AREA

351.568 km
351.733 km
MAIN
115 145
352.115 km
352.144 km
352.147 km
352.163 km
352.230 km
352.268 km
352.357 km
352.385 km
352.431 km
08-11L
08-11M
352.450 km
DN LOOP
40 X40 45 X45
352.460 km
352.505 km
MAIN
70 85
352.530 km
X40 X45
352.547 km
352.562 km
352.701 km
08-4
352.738 km
70 85
352.750 km
352.752 km
353.154 km
353.311 km

FOOTBRIDGE
SIDING 400m
AA
NARROW TRACK CLEARANCE
FRAME B
LOOP LINE
MAIN LINE
BB
NARROW TRACK CLEARANCE
08-11L
52
PLATFORM
08-11M
HALLS CREEK RD
HALLS CREEK
PAGES RIVER RD
TO PAGES RIVER
08-4

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

4	12/10/22	Distant signal reference corrected
3	22/2/19	Lookout working notation added & speed signs updated
2	25/7/18	Km correction to signal 4
1	12/1/18	Ground frame D & down siding removed & No 1 Up Siding removed

ARTC
NIB-T0423
Sheet No 1 of 1
Scale NTS
Sheet Size A3
TITLE
MURRURUNDI

2.7 Pages River (PGR)

General Arrangements

Pages River is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length: 1350 metres

The crossing loop allows trains up to 1350 metres in length to cross. The crossing loop is constructed 300 metres longer than existing crossing loops and will allow for simultaneous entry of rail traffic.

When rail traffic is stopped at the home / starting signal, the rear of the train may extend beyond the opposing home / starting signal up to the clearance point. With the train being clear even though it is located beyond the opposing home / starting signal, signalling equipment will allow routes to be cleared for the adjacent line.

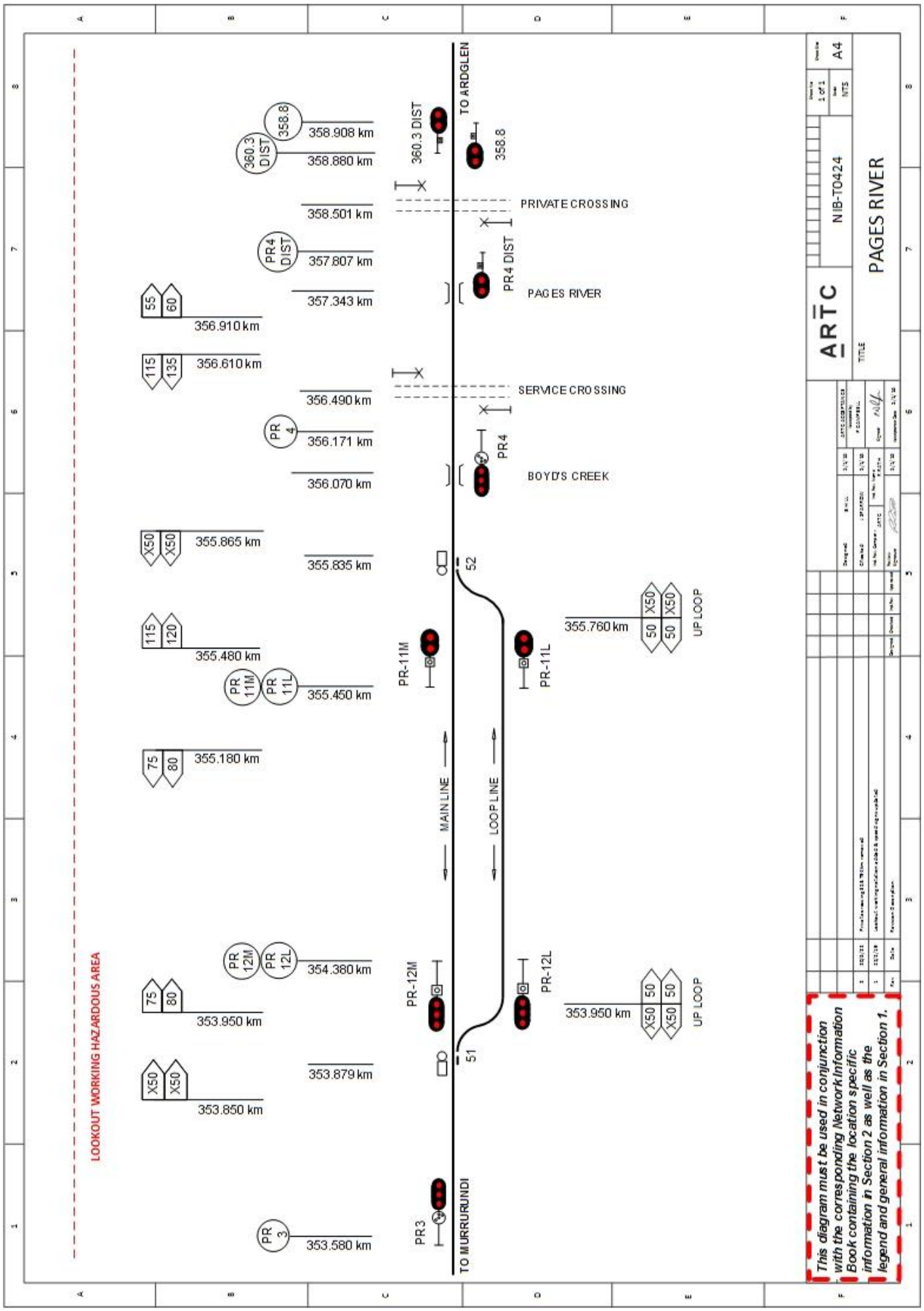
Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

EOL are provided adjacent to Nos 51 and 52 points.


TO ARDGLEN
TO MURRURUNDI
LOOKOUT WORKING HAZARDOUS AREA
MAIN LINE
LOOP LINE
PRIVATE CROSSING
SERVICE CROSSING
PAGES RIVER
BOYD'S CREEK
UP LOOP
UP LOOP
PR3
PR4
PR4 DIST
360.3 DIST
358.8
PR-11M
PR-11L
PR-12M
PR-12L
51
52
358.908 km
358.880 km
358.501 km
357.807 km
357.343 km
356.910 km
356.610 km
356.490 km
356.171 km
356.070 km
355.865 km
355.835 km
355.760 km
355.480 km
355.450 km
355.180 km
354.380 km
353.950 km
353.879 km
353.850 km
353.950 km
353.580 km
NIB-T0424
PAGES RIVER
TITLE
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.8 Ardglen (ARD)

General Arrangements

Ardglen is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1507 metres

Note: For instructions regarding bank locomotive working at Ardglen, refer to Section 2.11 "Bank Locomotive Working Chilcotts Creek to Ardglen"

Operation of Points and Signals

The points and signals at Ardglen are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

Nos. 51, 52 and 53 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points may be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML / EOL

An SL-locked cabin is provided adjacent to Nos. 51 and 52 points and contains ESML equipment. EOL for 52B points is on the cabin adjacent to 52 points.

Catchpoints

Nos. 53 and 52 catchpoints are located in the main line and the loop line respectively.

Except when required to be reversed for the passage of a train, a locomotive, a track machine, or for maintenance purposes, the catchpoints must be maintained in the normal position by the signaller.

High Street (Old Great Northern Highway) Level Crossing

Type F protection including flashing lights, warning bells and half boom barriers is provided at Old Great Northern Highway level crossing 363.350km.

A Shunter's Push Button switch for Old Great Northern Highway level crossing is located on the outside of the Relay Room at 363.221km.

Level crossing advisory signs showing SHUNTING TRAINS STOP PUSH BUTTON FOR LEVEL CROSSING LIGHTS to facilitate bank engine operation are located on the down approach to the Old Great Northern Highway crossing as follows:

Down Main 363.340km

Down Loop 363.340km

LOOKOUT WORKING HAZARDOUS AREA

359.682 km
PRIVATE CROSSING
360.3
360.238 km
358.8 DIST
360.266 km
TO PAGES RIVER
358.8 DIST
361.059 km
SWINGING RIDGE RD
09-1
361.505 km
09-1
362.213 km
09-3
362.268 km
55
60
362.294 km
362.329 km
09-3
ARDGLEN TUNNEL
362.816 km
X25
X25
363.020 km
363.029 km
363.040 km
09-12L
09-12M
363.110 km
09-12L
21
51
09-12M
LOOP LINE
MAIN LINE
MAIN
60
65
363.280 km
363.360 km
HIGH STREET
AA
BB

LOOKOUT WORKING HAZARDOUS AREA

MAIN
55
60
363.580 km
363.695 km
363.941 km
364.092 km
SWINGING RIDGE RD
UP LOOP
40
X40
45
X45
364.643 km
09-11L
09-11M
364.650 km
364.655 km
364.665 km
364.760 km
X40
X45
364.807 km
09-4
364.949 km
365.435 km
09-4 DIST
365.717 km
55
60
366.060 km
AA
LOOP LINE
MAIN LINE
BB
09-11L
52A
53
52B
09-11M
09-4
KANKOOL
09-4 DIST
TO KANKOOL

This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

Rev	Date	Revision Description
3	13/1/20	53 catch points km updated
2	22/2/19	Lookout working notation added & speed signs updated
1	25/8/17	54A & B points and quarry siding removed

Designed: B HILL 5/1/16
Checked: J SPARROW 5/1/16
Ind. Rev. Company: ARTC
Ind. Rev. Name: R RATH
Signed:
Railway Signature 5/1/16
ARTC ACCEPTANCE
Accepted by: P CAMPBELL
Acceptance Date: 5/1/16

ARTC
NIB-T0425
Sheet No: 1 of 1
Scale: NTS
Sheet Size: A3
TITLE
ARDGLEN

2.9 Kankool (KNK)

General Arrangements

Kankool is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 403 metres

Operation of Points and Signals

The points and signals at Kankool are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operating Power-operated Points in an Emergency

Nos. 51 and 52 points and 53 catchpoints are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

An SL-locked cabin is provided adjacent to Nos. 51 and 52 points and contains ESML equipment.

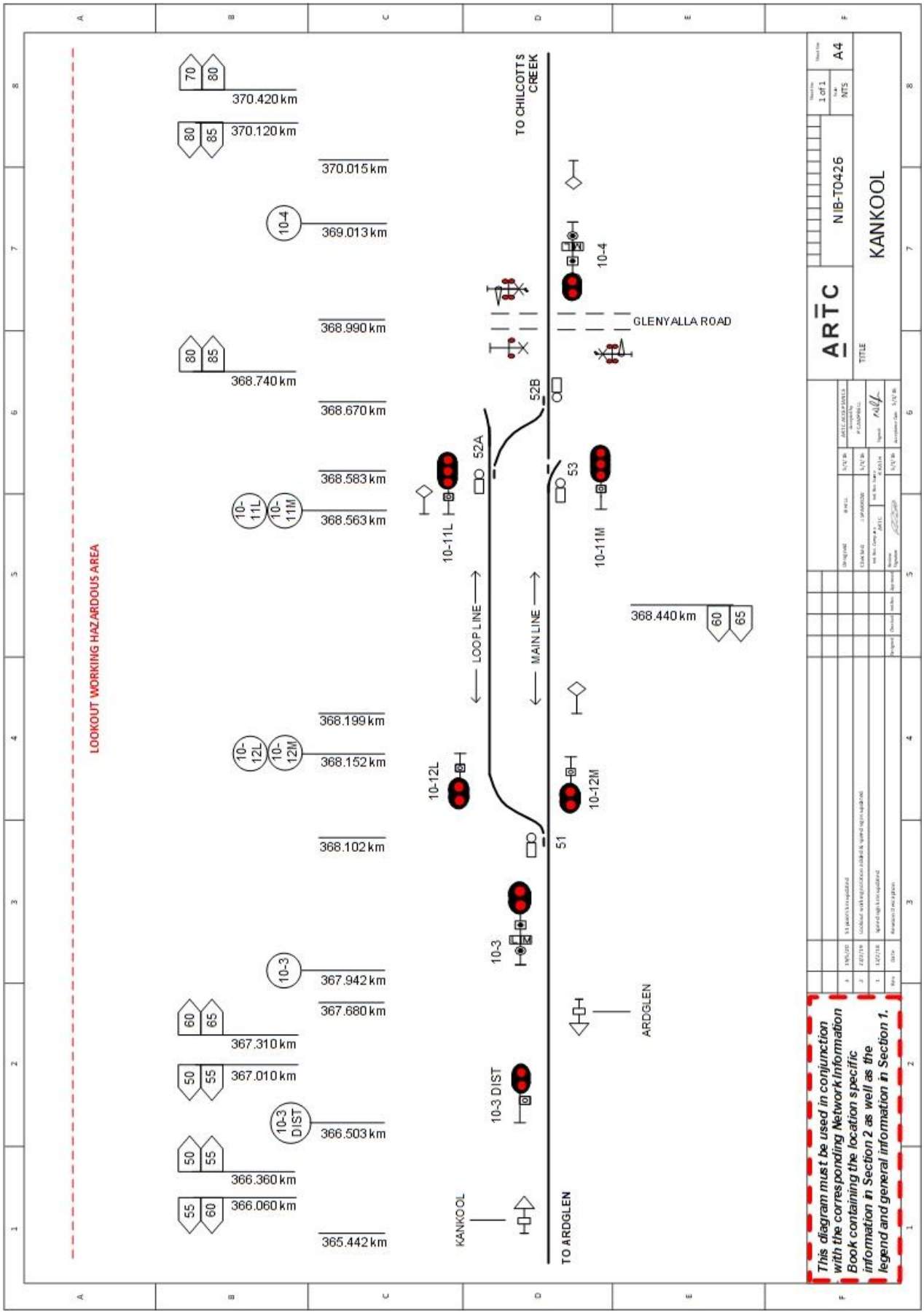
Catchpoints

Nos. 53 and 52 catchpoints are located in the main line and the loop line respectively.

The catchpoints must be maintained in the normal position by the signaller until required for the passage of a train, light locomotive or track vehicle, or for maintenance purposes.

Glenyalla Road Level Crossing

Type F active level crossing protection including flashing lights, audible warning devices and automatic boom gates is provided at Glenyalla Road level crossing 368.990km.


LOOKOUT WORKING HAZARDOUS AREA
370.420 km
370.120 km
370.015 km
369.013 km
368.990 km
368.740 km
368.670 km
368.583 km
368.563 km
368.440 km
368.199 km
368.152 km
368.102 km
367.942 km
367.680 km
367.310 km
367.010 km
366.503 km
366.360 km
366.060 km
365.442 km
10-4
10-11L
10-11M
10-12L
10-12M
10-3
10-3 DIST
52A
52B
53
51
LOOP LINE
MAIN LINE
TO CHILCOTTS CREEK
GLENYALLA ROAD
ARDGLEN
KANKOOL
TO ARDGLEN
NIB-T0426
KANKOOL
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.10 Chilcotts Creek (CCR)

General Arrangements

Chilcotts Creek is a Rail Vehicle Detection location controlled from Network Control Centre North.

It has two sidings on the country end of the loop, for stowing bank engines.

Loop length 1350 metres

Engine Siding No 1 120 metres

Engine Siding No 2 120 metres

Operation of Points and Signals

The points and signals at Chilcotts Creek are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

NOTE: Nos 51, 52, and 53 points are Swingnose type.

Operating Power-operated Points in an Emergency

Nos. 51, 52, 53, 54, and 55 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

EOL are provided on traffic huts located adjacent to Nos 51 and 52 points.

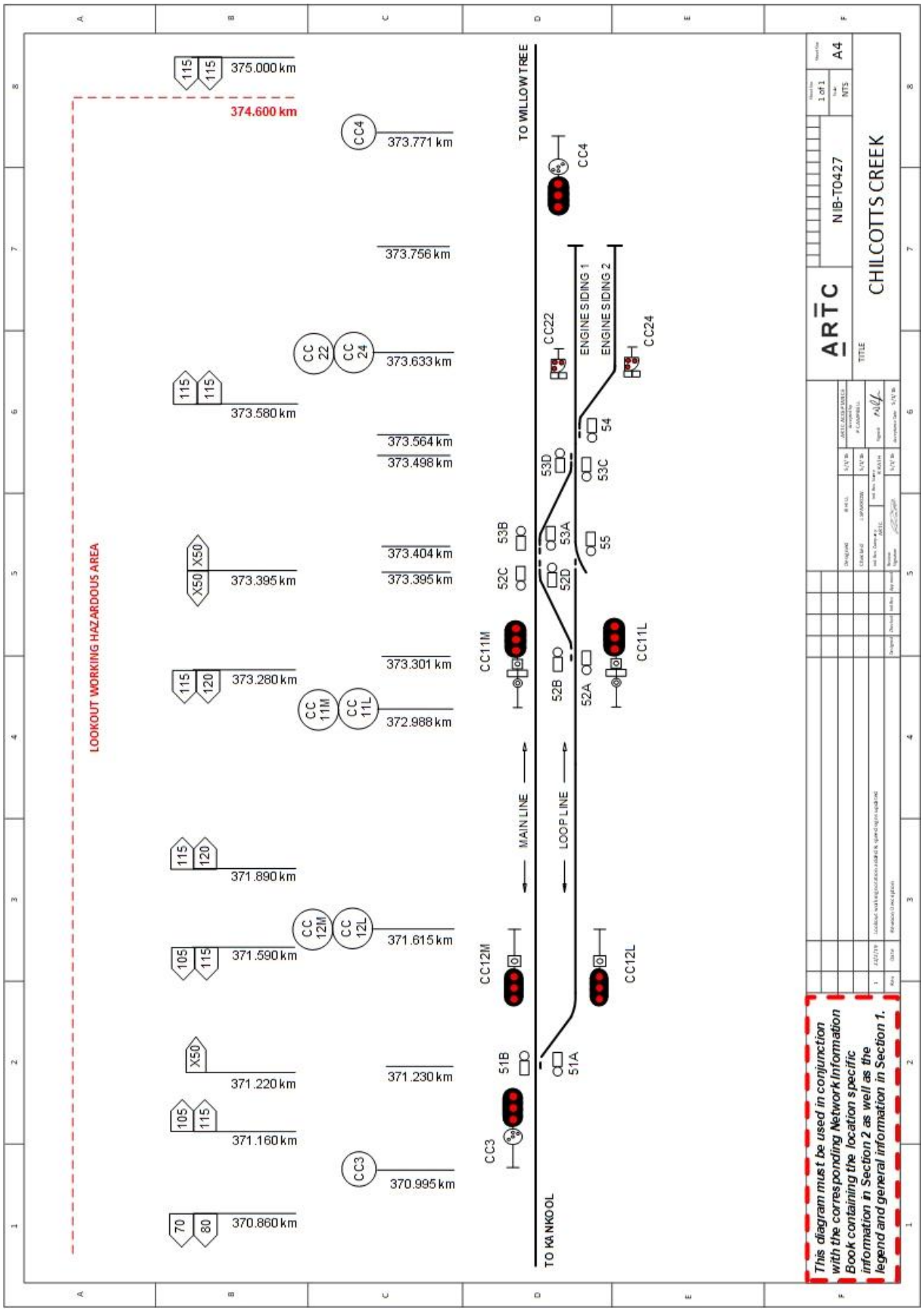
Catchpoints

Nos. 55 catchpoints are located between the loop line and the engine sidings.

Worksite Protection

When planning works at this location, rail traffic may be located within Engine Siding 1 or Engine Siding 2.

The appropriate method of protection must be applied to prevent rail traffic entry to the worksite.


375.000 km
374.600 km
373.771 km
373.756 km
373.633 km
373.580 km
373.564 km
373.498 km
373.404 km
373.395 km
373.395 km
373.301 km
373.280 km
372.988 km
371.890 km
371.615 km
371.590 km
371.230 km
371.220 km
371.160 km
370.995 km
370.860 km
LOOKOUT WORKING HAZARDOUS AREA
TO WILLOW TREE
TO KANKOOL
MAIN LINE
LOOP LINE
ENGINE SIDING 1
ENGINE SIDING 2
CC4
CC22
CC24
CC11M
CC11L
CC12M
CC12L
CC3
51A
51B
52A
52B
52C
52D
53A
53B
53C
53D
54
55
NIB-T0427
CHILCOTTS CREEK
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.11 Bank Locomotive Working of Coal Trains Chilcotts Creek to Ardglen

Introduction

Bank Locomotive Working is where additional locomotive power is attached or brought online for part of a journey. Various modes of operation are utilised on this route to rationalise the number of locomotives required to haul services over the whole journey.

Bank locomotive working for coal trains is permitted between Chilcotts Creek and Ardglen as per the instructions in the Route Access Standard (RAS) Heavy Haul Network Section Pages H2 - Muswellbrook to Werris Creek. In addition to the details in the RAS the following will also apply:

Preparation for bank locomotive working

In preparation for bank locomotive working, the Driver of the Train requiring the use of the bank locomotives must advise the Bank locomotive Driver that the train requiring assistance is passing the Watermark crossing loop. The Bank Locomotive Driver must then prepare the bank locomotives in readiness for the arrival of the train requiring bank locomotive assistance.

Attaching bank locomotives at Chilcotts Creek

Bank engines are usually attached to the loaded train standing in the Chilcotts Creek loop. The Bank Locomotive Co-driver must alight from the Bank Locomotives on the Bank Locomotive Driver's side. (The Bank locomotive Co-driver must not operate on the main line side of the train unless Upper Hunter 2 Network Controller has approved main line signals are at stop, the main line is clear of rail traffic and blocking facilities have been applied.)

In this regard, it will be necessary for through Up and Down trains to be held at the home signals until the work is completed.

Process

Phoenix routes can be route stored to allow the signals to clear for the Bank Engines to proceed onto the rear of train when in clear.

Network Control should allow 10 minutes for the process from the time the train arrives at the crossing loop, signal clearing for bankers, engines attaching and then departing.

Bank engines detach prior to 09-12M / L signal advising the driver of train they have detached (If the engines don't detach for some reason, the bankers then continue to Pages River and detach).

The bank engines drivers are required to change ends and then depart for Chilcott's Creek.

Detaching the bank locomotives at Ardglen

Once the Bank locomotives have detached, the bank locomotives are to be returned to the available siding at Chilcotts Creek.

2.11.1 Alternative Options for Bank Locomotive Working

For other bank locomotive working arrangements available on this line section, refer to the Route Access Standard (RAS) Heavy Haul Network Section Pages H2 - Muswellbrook to Werris Creek.

2.12 Willow Tree (WTE)

General Arrangements

Willow Tree is a Rail Vehicle Detection location controlled from Network Control Centre North.

Passenger platform is located on Down side of main line.

Loop length	1793 metres
Goods siding	627 metres
Wheat siding	396 metres
Stock siding	357 metres

Operation of Points and Signals

The points and signals at Willow Tree are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

There is a Shunt Limit Board facing Up trains at 374.894 km.

Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points may be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

Traffic Huts

An EOL is provided on 51 Points Location hut adjacent to 51 points.

An EOL is provided on the traffic hut adjacent to 52 points.

Ground Frames

Frame B

Frame B is located on the Up side of the loop line adjacent to the crossover and provides access to Willow Tree goods siding.

Frame B is unlocked by the releasing switch from the Network Controller NCCN.

Frame C

Frame C is located on the Down side of the main line adjacent to the crossover and provides access to Willow Tree stock siding.

Frame C is unlocked by the releasing switch from the Network Controller NCCN

Frame H

Frame H is located on the Up side of the loop line adjacent to the crossover and provides access to Willow Tree silo siding.

Frame H is unlocked by the releasing switch from the Network Controller NCCN

Merriwa Road Level Crossing

Type F roadside flashing lights, half booms and audible warning devices are provided at Merriwa Road level crossing at 375.370km.

The warning equipment is automatically controlled by track circuit for Down and Up direction rail traffic, subject to the clearance of the signals on either side of the level crossing.

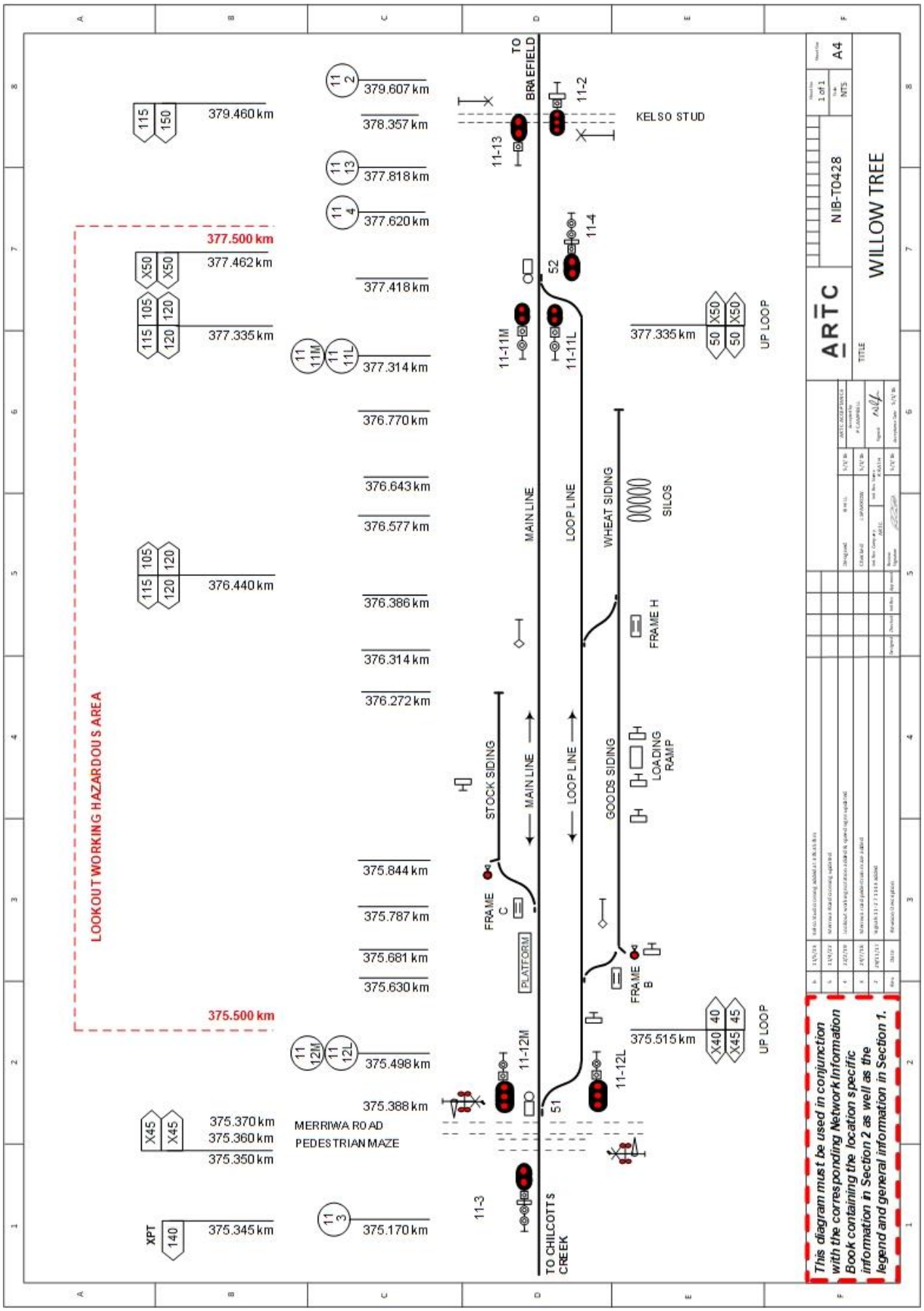
If rail traffic closely approaches Up Home/Starting signals Nos. 11-12M / 11-12L or Down Home signal No. 11-3 at STOP, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed, but clearing of the signals will be delayed for 15 seconds and until the half booms have descended to the horizontal position.

If it becomes necessary to hold rail traffic at signal No. 11-12M, No. 11-12L or No. 11-3 after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to STOP and will then cancel automatically.

A pedestrian crossing with approach mazes, lighting assemblies “Don’t Walk” LED lights and audible warning devices is provided at 375.360km.

Emergency keys for level crossing

The emergency keys for the type F level crossing and pedestrian level crossing warning equipment at Merriwa Road level crossing are located at the ARTC Provisioning Centre Muswellbrook.


TO BRAEFIELD
KELSO STUD
11-2
11-13
11-4
11-11M
11-11L
11-12M
11-12L
11-3
379.607 km
379.460 km
378.357 km
377.818 km
377.620 km
377.500 km
377.462 km
377.418 km
377.335 km
377.314 km
376.770 km
376.643 km
376.577 km
376.440 km
376.386 km
376.314 km
376.272 km
375.844 km
375.787 km
375.681 km
375.630 km
375.500 km
375.498 km
375.388 km
375.370 km
375.360 km
375.350 km
375.345 km
375.170 km
375.515 km
LOOKOUT WORKING HAZARDOUS AREA
MAIN LINE
LOOP LINE
WHEAT SIDING
SILOS
FRAME H
STOCK SIDING
FRAME C
PLATFORM
GOODS SIDING
LOADING RAMP
FRAME B
UP LOOP
UP LOOP
MERRIWA ROAD
PEDESTRIAN MAZE
TO CHILCOTTS CREEK
NIB-T0428
WILLOW TREE
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.13 Braefield (BRA)

General Arrangements

Braefield is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1350 metres

Operation of Points and Signals

The points and signals at Braefield are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

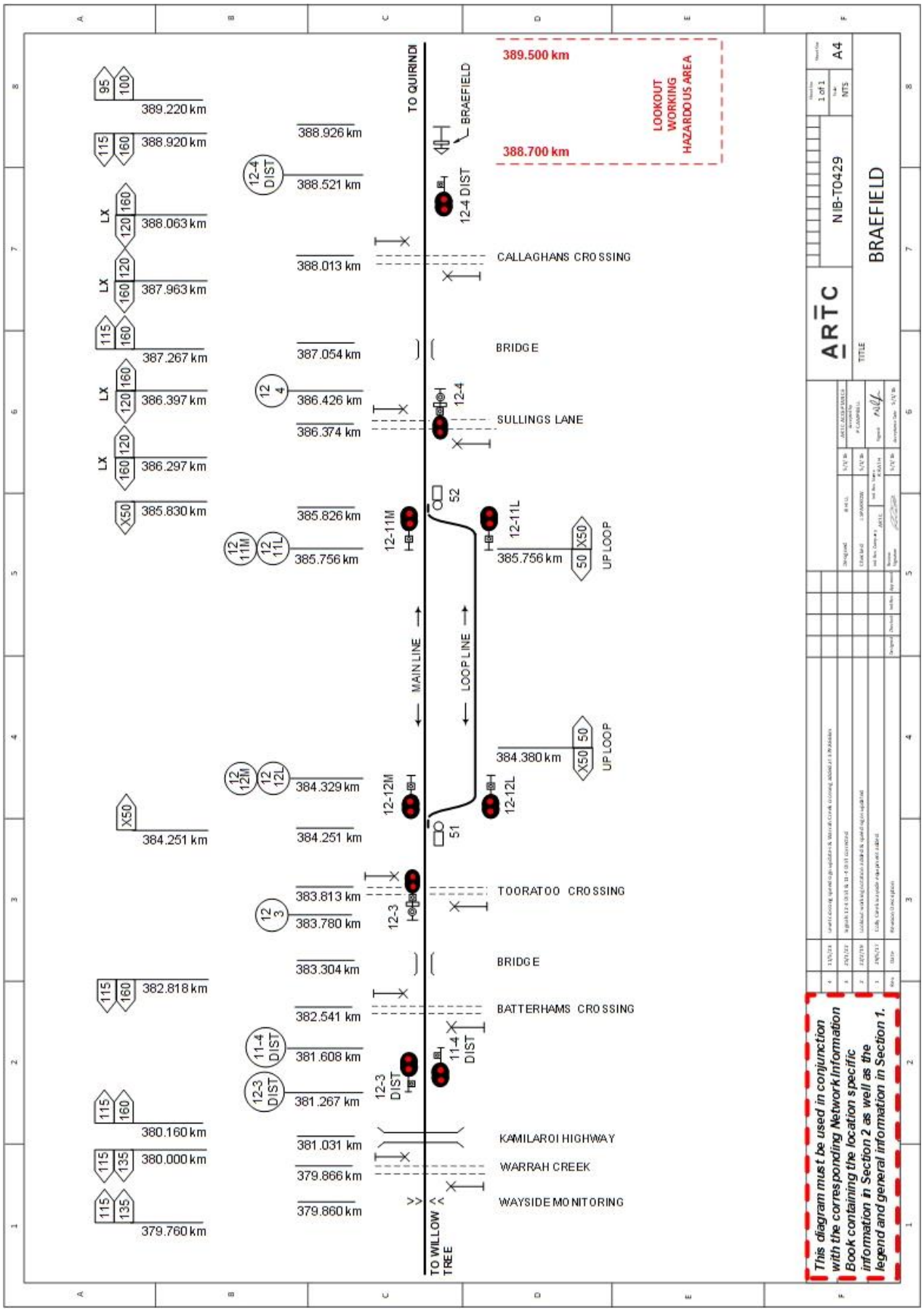
Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

EOLs are provided on the signalling locations adjacent to the starting signals 12M (51 points) & 11M (52 points).


389.500 km
388.700 km
LOOKOUT WORKING HAZARDOUS AREA
TO QUIRINDI
BRAEFIELD
12-4 DIST
CALLAGHANS CROSSING
BRIDGE
SULLINGS LANE
12-4
12-11M
12-11L
UP LOOP
MAIN LINE
LOOP LINE
12-12M
12-12L
TOORATOO CROSSING
12-3
BRIDGE
BATTERHAMS CROSSING
11-4 DIST
12-3 DIST
KAMILAROI HIGHWAY
WARRAH CREEK
WAYSIDE MONITORING
TO WILLOW TREE
389.220 km
388.926 km
388.920 km
388.521 km
388.063 km
388.013 km
387.963 km
387.267 km
387.054 km
386.426 km
386.397 km
386.374 km
386.297 km
385.830 km
385.826 km
385.756 km
385.756 km
384.380 km
384.329 km
384.251 km
384.251 km
383.813 km
383.780 km
383.304 km
382.818 km
382.541 km
381.608 km
381.267 km
380.160 km
381.031 km
380.000 km
379.866 km
379.760 km
379.860 km
NIB-T0429
BRAEFIELD
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.14 Quirindi (QDI)

General Arrangements

Quirindi is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length	785 metres
Goods Siding Length	300 metres

NOTE: S1 locos must not travel via Loop or sidings; E.g. TT, 90, 92, 5000, 6000 class locos.

Operation of Points and Signals

The points and signals at Quirindi are power operated and controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Operation of Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

An SL-locked cabin is provided adjacent to Nos. 51 and 52 points and contains ESML equipment.

Access to Goods Siding

Access to the goods siding is via the manual operation of 53 points off the main line.

The points control panel is located adjacent to 53A points on the outside of the Quirindi Relay Room location.

The push button controls on the panel operates the points. To operate 53 points the Network Controller must provide the release (Release Number 81). Once the release has been given, '53 FREE' indication will illuminate 'Green' showing that the points are free to operate.

Points Operation from Normal to Reverse:

The Competent Worker must:

1. Ensure 53 POINTS FREE and 53 POINTS NORMAL lamps are illuminated
2. Press 53 POINTS REVERSE Push Button
3. Ensure 53 POINTS REVERSE lamp illuminates to indicate that points are locked and detected in reverse.

Points Operation from Reverse to Normal field operator is to:

The Competent Worker must:

1. Ensure 53 POINTS FREE and 53 POINTS REVERSE lamps are illuminated
2. Press 53 POINTS NORMAL Push Button
3. Ensure 53 POINTS NORMAL lamp illuminates to indicate that points are locked and detected in reverse.

53 A end Turnout is located at 392.822km.

53 B end Catch Point is located at 392.909km.

At the completion of the operation of 53 points, the Competent Worker must ensure the points are returned to the normal position before the release can be returned to the Network Controller.

NOTE: Signal numbers 3, 4, 11 and 12L will not be able to be set whilst the release for 53 points is in use.

Henry Street Level Crossing

Type F flashing light highway signals and warning bells are provided at Henry Street level crossing at 392.378km. A pedestrian crossing with swing gates is also provided on the Bells Gate side of the level crossing.

The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on either side of the crossing.

If a train closely approaches Up home/starting signals Nos. 13-12M / 13-12L or Down home signal No. 13-3 at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed, but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at signals Nos. 13-12M / 13-12L or No. 13-3 after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Nowland Street Level Crossing

Type F flashing light highway signals and a warning bell are provided at Nowland Street level crossing at 393.223km.

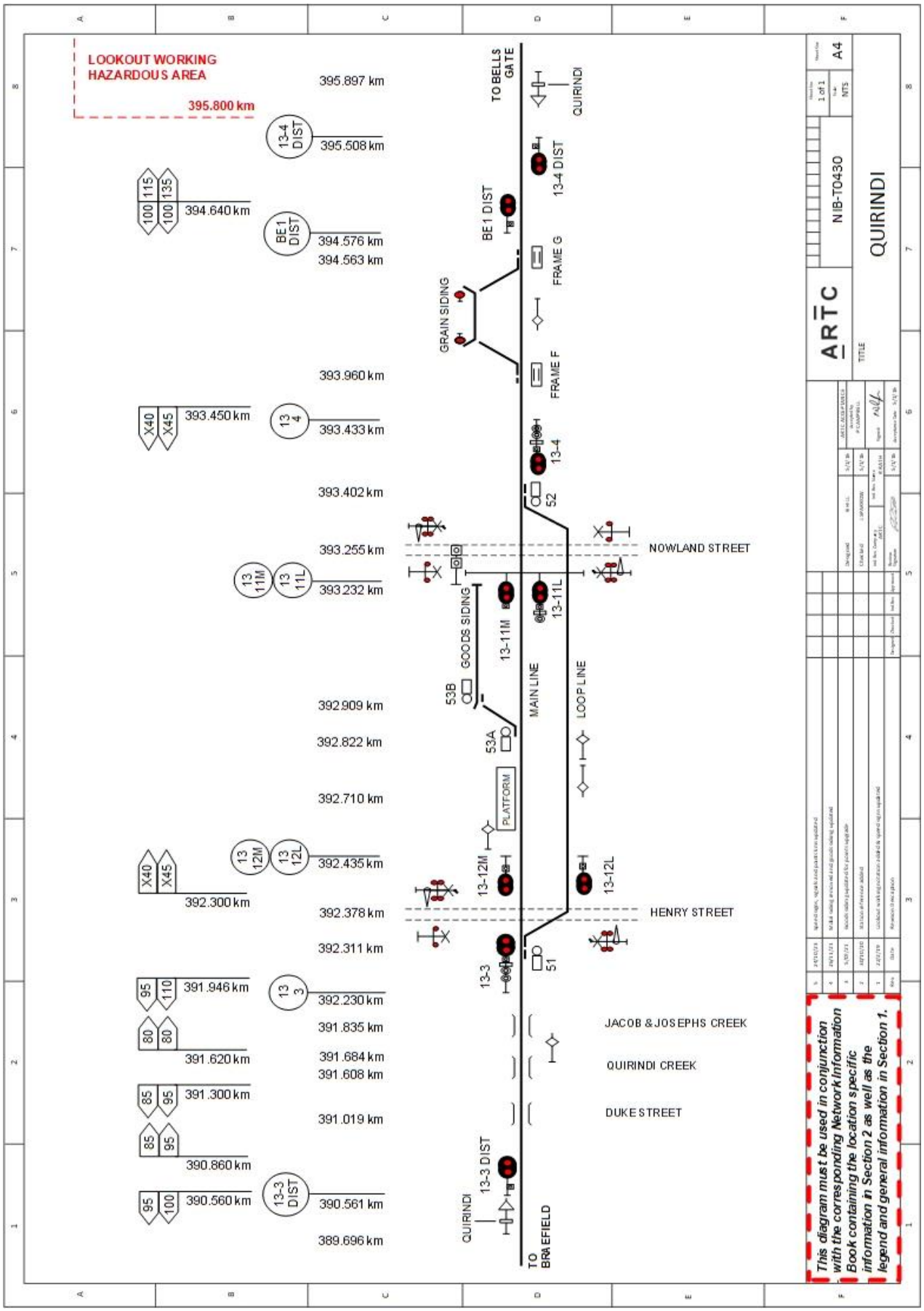
The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on either side of the crossing.

If a train closely approaches Down home/starting signals Nos. 13-11M / 13-11L or Up home signal No. 13-4 at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at signals Nos. 13-11M / 13-11L or No. 13-4 after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Emergency Keys for Level Crossings

The emergency keys for the type F level crossing warning equipment at Henry Street and Nowland Street level crossings are located in a steel box, secured by an SL lock, and attached to the wall inside the traffic room.


LOOKOUT WORKING HAZARDOUS AREA
395.800 km
395.897 km
13-4 DIST
395.508 km
100 115
100 135
394.640 km
BE1 DIST
394.576 km
394.563 km
393.960 km
X40
X45
393.450 km
13 4
393.433 km
393.402 km
393.255 km
13 11M
13 11L
393.232 km
392.909 km
392.822 km
392.710 km
13 12M
13 12L
392.435 km
X40
X45
392.300 km
392.378 km
392.311 km
95
110
391.946 km
13 3
392.230 km
80
80
391.835 km
391.620 km
391.684 km
391.608 km
85
95
391.300 km
391.019 km
85
95
390.860 km
95
100
390.560 km
13-3 DIST
390.561 km
389.696 km
TO BELLS GATE
QUIRINDI
13-4 DIST
BE1 DIST
FRAME G
GRAIN SIDING
FRAME F
13-4
52
NOWLAND STREET
13-11L
13-11M
GOODS SIDING
53B
MAIN LINE
LOOP LINE
53A
PLATFORM
13-12M
13-12L
HENRY STREET
13-3
51
JACOB & JOSEPHS CREEK
QUIRINDI CREEK
DUKE STREET
13-3 DIST
QUIRINDI
TO BRAEFIELD
ARTC
NIB-T0430
QUIRINDI
A4
NTS
TITLE
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.15 Quirindi Wheat Siding (QDW)

General Arrangements

Quirindi Wheat siding (484m) is a silo siding located in the Quirindi to Bells Gate section.

Safeworking

NOTE: If a train or track vehicle has locked away in the siding, a Special Proceed Authority (SPA) or TOA is needed to shunt or depart Quirindi Wheat siding.

Ruling Gradients in the siding	
Down direction	1 in 25 at Sydney end of siding reduces to 1 in 700
Up direction	1 in 25 downhill at Sydney end of siding

Ground Frames

Frame F

Frame F is located on the Up side of the main line adjacent to the points and provides access to the wheat siding.

Frame F is unlocked by a key from releasing switch F, which is located adjacent to frame F.

Releasing switch F is electrically released by No. 83 Release at Network Control Centre North

Frame G

Frame G is located on the Up side of the main line adjacent to the points and provides access to the wheat siding.

Frame G is unlocked by a key from releasing switch G, which is located adjacent to frame G.

Releasing switch G is electrically released by No. 83 Release at Network Control Centre North

Emergency Release Key

An emergency release key is provided to release frames F and G if there is a failure of releasing switch F or G. The key is located in a release lock in the traffic room at Quirindi.

When the key is taken from the release lock, it will place and maintain all relevant protecting signals at stop.

2.16 Bells Gate (BEG)

Bells Gate is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 1350 metres

The crossing loop allows trains up to 1350 metres in length to cross. The crossing loop is constructed 300 metres longer than existing crossing loops and will allow for simultaneous entry of rail traffic.

Due to steep gradients at Bells Gate on the country end of the loop the down home / starting signals 11M and 11L will be located 400m from the clearance point of 52 points.

When rail traffic is stopped at the home / starting signal, the rear of the train may extend beyond the opposing home / starting signal up to the clearance point. With the train being clear even though it is located beyond the opposing home / starting signal, signalling equipment will allow routes to be cleared for the adjacent line.

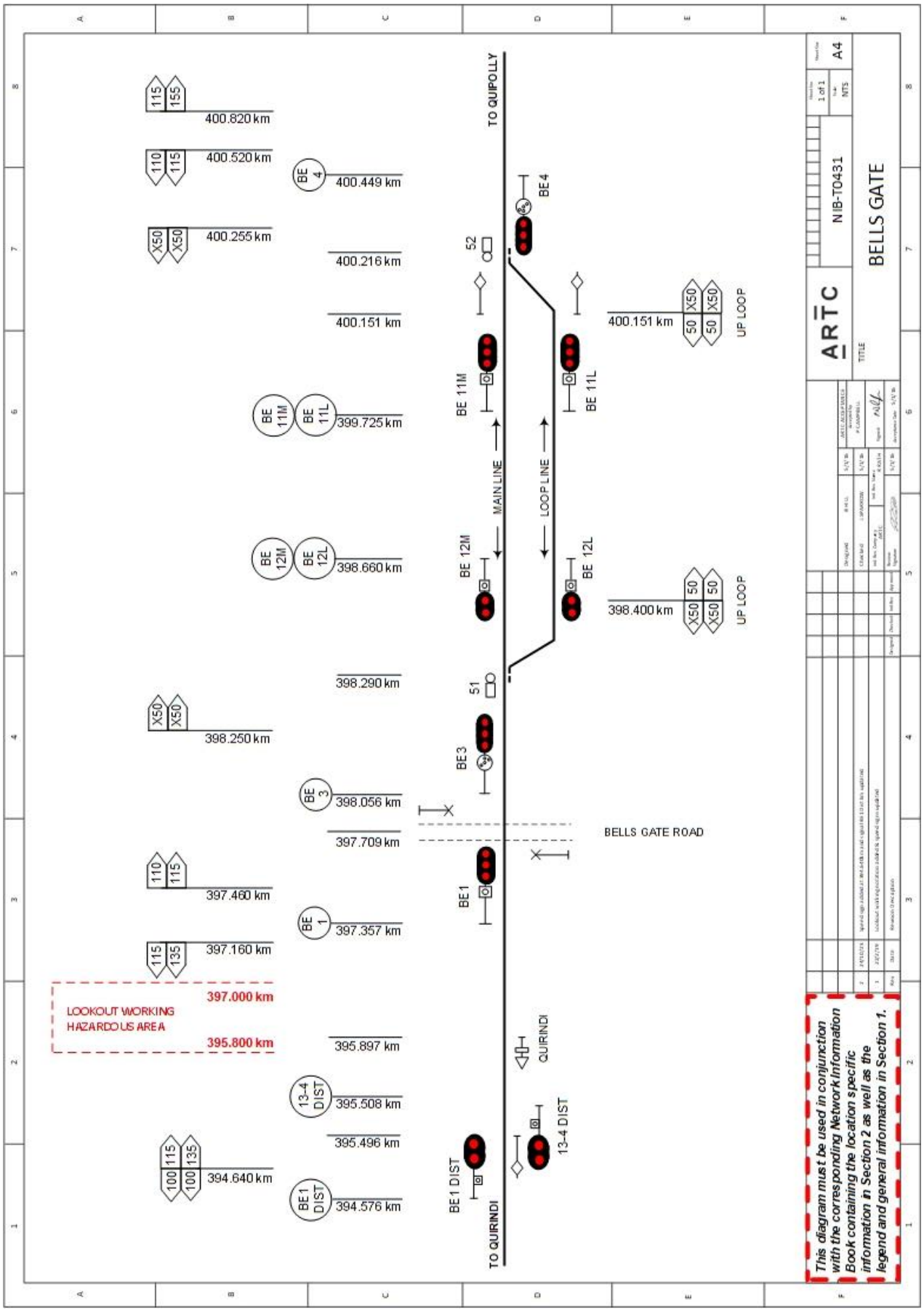
Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

EOLs are provided in the EOL cabinets located adjacent to Nos 51 and 52 points.


TO QUIPOLLY
400.820 km
400.520 km
400.449 km
400.255 km
400.216 km
400.151 km
399.725 km
398.660 km
398.290 km
398.250 km
398.056 km
397.709 km
397.460 km
397.357 km
397.160 km
397.000 km
LOOKOUT WORKING
HAZARDOUS AREA
395.800 km
395.897 km
395.508 km
395.496 km
394.640 km
394.576 km
TO QUIRINDI
BE 4
52
BE 11M
BE 11L
MAIN LINE
LOOP LINE
BE 12M
BE 12L
51
BE3
BELLS GATE ROAD
BE 1
QUIRINDI
13-4 DIST
BE 1 DIST
UP LOOP
UP LOOP
NIB-T0431
BELLS GATE
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.17 Quipolly (QUI)

General Arrangements

Quipolly is a Rail Vehicle Detection location controlled from Network Control Centre North.

Loop length 412 metres

NOTE: S1 locos must not travel via Loop or sidings; E.g. TT, 90, 92, 5000, 6000 class locos.

Operating Power-operated Points in an Emergency

Nos. 51 and 52 points are electrically power-operated.

If these points fail to operate correctly, the Network Controller must try to restore the points to their previous position to allow trains to continue running. However, if it is necessary to alter the route, the points should be manually operated.

The Signals maintenance representative must be promptly advised of the circumstances.

ESML

A cabin is provided adjacent to Nos. 51 and 52 points and contains a locked ESML cabinet.

Lowes Creek Road Level Crossing

Type F active level crossing protection including flashing lights, audible warning devices and automatic boom gates is provided at Lowes Creek Road level crossing 401.861km.

Shunting Operation of Level Crossing Warning Equipment

Shunter's push button boxes secured by an SL Lock are provided on the down main line city side of the crossing and on the up loop line country side of the crossing. Advisory Shunting Signs inscribed 'SHUNTING TRAINS MUST PUSH BUTTON TO ACTIVATE LEVEL CROSSING' will be located 5 metres either side of the crossing on both Main and Loop lines.

The push buttons are provided for use during shunting or commencing a 'turn back' journey.

Rail traffic entering the Main or Loop line in the Up Direction must pull up to 14-12M / 14-12L Home / Starting signal to complete the automatic crossing operation.

Each box contains a 'Start' and 'Cancel' push button.

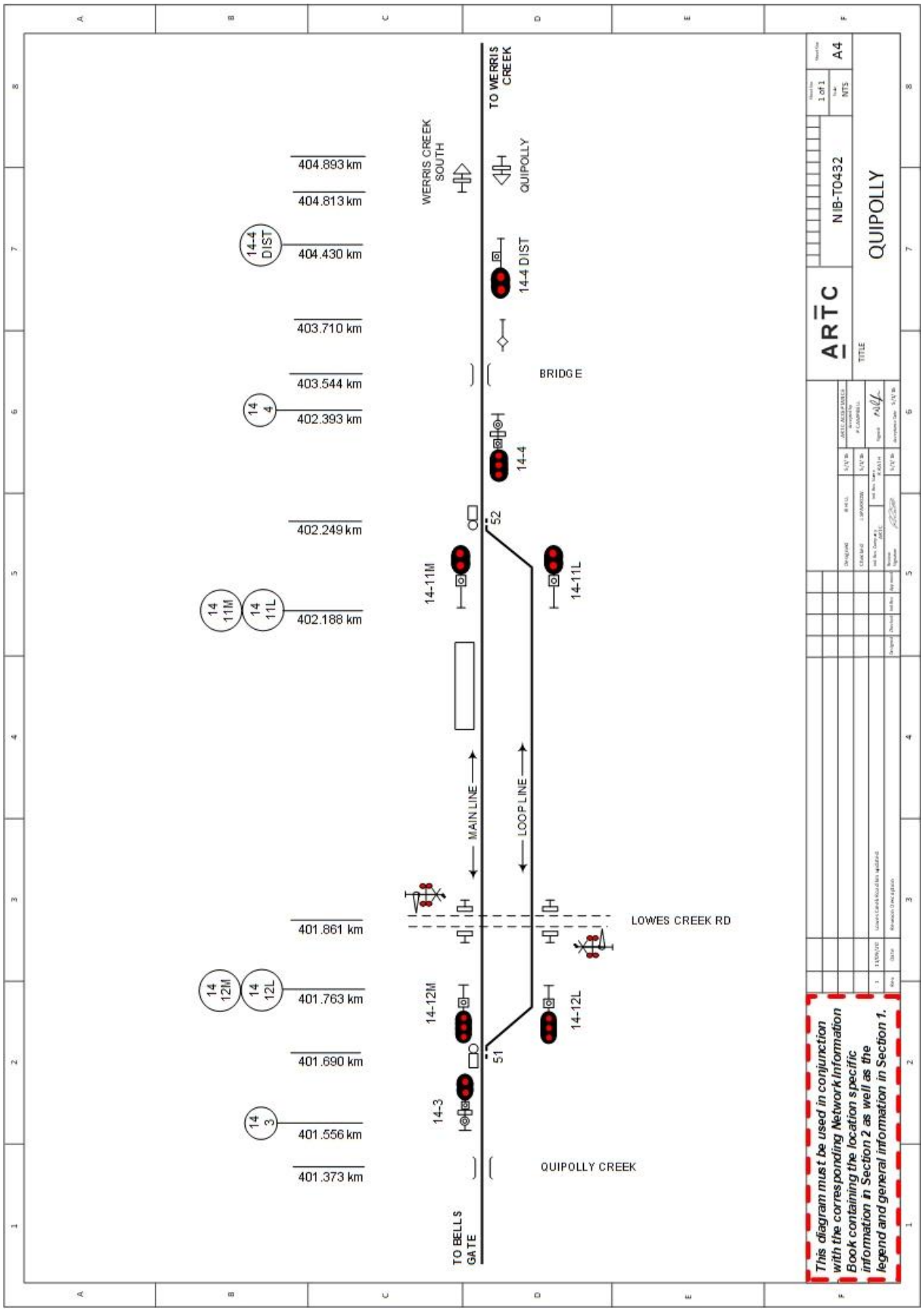
The Main line 'Start' button must be used for shunting movements on the main line. The crossing equipment will cease to operate when the rail traffic clears the main line level crossing track circuit.

The Loop line 'Start' button must be used for shunting movements on the loop line. The crossing equipment will cease to operate when the rail traffic clears the loop line level crossing track circuit.

Use of the 'Cancel' button is not required if the correct push button is used.

The 'Cancel' button is only to be used if the crossing was operated and needs to be cancelled again before the movement has commenced or if the incorrect push button was operated to start the crossing.

The Shunter's push buttons are provided for use by competent workers in accordance with ARTC Network Rules and Procedures.


TO WERRIS CREEK
WERRIS CREEK SOUTH
QUIPOLLY
14-4 DIST
BRIDGE
14-4
52
14-11M
14-11L
MAIN LINE
LOOP LINE
LOWES CREEK RD
14-12M
14-12L
51
14-3
QUIPOLLY CREEK
TO BELLS GATE
404.893 km
404.813 km
14-4 DIST
404.430 km
403.710 km
403.544 km
14 4
402.393 km
402.249 km
14 11M
14 11L
402.188 km
401.861 km
14 12M
14 12L
401.763 km
401.690 km
14 3
401.556 km
401.373 km
ARTC
NIB-T0432
QUIPOLLY
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.