

# Network Information Book

## Hunter Valley North West

### Goobang Junction (exc) to Dubbo (exc) and Turrawan (exc) to North Star (inc) & Camurra West

OGW-30-23

#### Applicability

Hunter Valley

#### Publication Requirement

Internal / External

#### Primary Source

Local Appendices North Volume 4  
Route Access Standard – Defined Interstate Network D12, Intrastate Network Section Pages I4 & I6 & Heavy Haul  
Network Section Pages H3

#### Document Status

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3.5	16 Feb 2024	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 release of document

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1.1	31 May 2016	2.0	Update of km references in text and diagrams relating to PTOS
2.0	15 Sep 2017	1.6, 1.14 2.10, 2.16	Moree location updated to include Moree East siding and Fitzroy Street Narrabri level crossing updated. Milguy loop length and North Star LPA & TOA information added.
2.1	30 Jul 2018	Various	Lookout Working information added as new section 1.14 with various diagrams updated & some added with the relevant details.
2.2	21 Feb 2019	1.6, 1.14, 2.2 & 2.9	Lookout working information amended in section 1.14 and diagrams as detailed in safe notice 2-4164. Level crossings at Narrabri Junction & Moree South updated and speed signs added.
2.3	23 Dec 2019	1.7, 1.15, 2.10.2, 2.16	Maximum Permitted Speeds section updated. Diagram legend updated. Moree East Siding grain operations reference added. Moree South & Moree diagrams updated. North Star yard details updated.
2.4	8 Apr 2021	2.4, 2.6 & 2.7	Narrabri North & Pennys Road locations text updated. Narrabri North, Narrabri – Edgeroi, Bellata & Pennys Road diagrams updated.
2.5	24 May 2021	Various	Diagrams updated to relocate usage note to bottom corner of template.
2.6	14 Oct 2021	1.5.2, 1.6, 1.15, 2.7, 2.8, 2.9, 2.11	Interlockings & Sidings, Level Crossings table and Drawing Legend updated. Pennys Road location updated. Gurley location removed. Pennys Road, Pennys Road – Moree, Moree South & Camurra diagrams updated.
2.7	21 Jan 2022	1.1, 1.4, 2.2, 2.10, 2.11	Board Extent updated. Adjacent Train Control section, Narrabri Junction, Camurra & Camurra West locations Country Regional Network references updated.
2.8	27 May 2022	2.4	Narrabri North location text and diagram updated.
3.0	29 Jul 2022	Various	Book renamed and Goobang Junction to Dubbo West locations added from Hunter West NIB. Narwonah AWB, Narromine South & Narromine South West diagrams updated.
3.1	26 Oct 2022	1.5, 1.6, 2.15, 3.4, 3.5, 3.6, 3.7, 3.8	Section Operating Equipment and Level Crossings table updated. Edgeroi location removed, Bellata & Penneys Road locations updated, Bobbiwaa and Waterloo Creek locations added. Narrabri North diagrams updated. Dubbo diagram updated.
3.2	31 Mar 2023	Various	Interlockings & Sidings & Level Crossings table updated. CRN safety interface agreement details updated. Tycannah Creek location added. Moree location & diagrams updated. Goobang North, Turrawan, Bobbiwaa, Bellata, Penneys Road, Waterloo Creek, Waterloo Creek – Tycannah Creek & Camurra diagrams updated.
3.3	1 Sep 2023	1.1, 1.6, 2.14.1, 3.3, 3.6, 3.14, 3.16	Board Extent and Level Crossings table updated. Bellata text and diagram updated. Dubbo and Narrabri diagrams updated. Field telephone references removed from Narromine, Milguy and Croppa Creek.

3.4	3 Oct 2023	1.5.2, 1.6, 3.14, 3.15, 3.16	Interlockings & Sidings and Level Crossings table updated. Coolleearlee and Murgo locations added. Milguy and North Star locations updated and Crooble location removed.
3.5	16 Feb 2024	1.6, 3.10	Level Crossings table and Moree South diagram updated.

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## 1 General Information

### 1.1 Board Extent

Goobang Junction (exclusive) GJ154 signal 451.927km to Dubbo (exclusive) DO28 signal 462.655km and Narromine (inclusive) Begin Train Order Working sign 497.792km

Turrawan (exclusive) TN4 Signal 548.694km to North Star (inclusive) Stop Block 760.460km and Camurra West (exclusive) ARTC end territory board 679.040km

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

Contact Numbers:

Phone: 02 4902 7903

Emergency: 02 4902 7963

Train Transit Manager: 02 4902 9410

*Mon – Fri 1400hrs to 0600hrs and weekends, this board and Hunter West are controlled by Hunter West Network Controller NCCN*

Phone: (02) 4902 7916

Emergency: (02) 4902 7976

### 1.2 Safeworking System

#### Train Management and Control System (TMACS)

Goobang Junction (exc) to Narromine (exc)

Narromine (exc) to Dubbo (exc)

Turrawan (exc) to North Star (exc)

#### Yard Working

Narromine yard

Operator's Key – All Sidings

Work on Track in sidings and Narromine / North Star yards require a manual TOA.

### 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	Phone 02 4902 7902	Emergency	02 4902 7962
Country Regional Network – North West Control		Phone:	02 4028 9501
Country Regional Network – South West Control		Phone	02 4028 9502
ARTC NCCS TOCO		Phone	02 6924 9801

## 1.5 Section Operating Equipment / Notes

### 1.5.1 Motorised Point Machines

Motorised points are in all corridors.

### 1.5.2 Interlockings and Sidings

Km	Interlocking, Station, Platform or Siding	Length of Passenger Platform in Metres
451.358	Goobang Junction North	
452.417	Parkes North West Link	
458.320	Nanardine	
465.317	Goonumbla	
472.823	Alectown West	
482.026	Mickibri	
494.400	Peak Hill South Siding	
497.247	Peak Hill	
529.243	Wyanga	
532.199	Timjelly	
550.134	Narwonah AWB	
553.554	Narromine South	
555.840	Narromine South-West	
497.554	Narromine	138
476.695	Minore	
463.500	Dubbo West	
565.009	Narrabri Junction	
569.240	Narrabri	Main, 194
572.840	Narrabri North	
591.000	Bobbiwaa	
615.468	Bellata	Main, 88
623.979	Penneys Road	

629.500	Waterloo Creek	
656.500	Tycannah Creek	
661.888	Moree South (includes Saleyard, Louis Dreyfus Commodities, Silo, Wheat & Vegetable sidings)	
665.600	Moree	Main, 116
676.895	Camurra	
679.040	Camurra West	
698.200	Coolleearlee	
706.830	Milguy	
733.599	Croppa Creek	
737.800	Murgo	
758.571	North Star	

### 1.5.3 Unfenced lines

Rail Traffic Crews are reminded of the risk of accidents on unfenced lines.

All cases of injury to animals must be reported to the Network Controller.

## 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
<b>Goobang North to Dubbo West</b>							
1076		Public Road / Stock Crossing Goobang Jct	Parkes - Narromine	449.592	Road	Public	Stop Signs
1077	27	Brolgan Road Goobang Junction	Parkes - Narromine	449.774	Road	Public	Half Boom Flashing Lights
1078	43	Henry Parkes Way Goobang North	Parkes - Narromine	452.470	Road	Public	Half Boom Flashing Lights
1079		Trundle Back Road Goobang North	Parkes - Narromine	454.474	Road	Public	Half Boom Flashing Lights
1080		Nanardine Lane Nanardine	Parkes - Narromine	458.276	Road	Public	Stop Signs
1081		Wyatts Lane Nanardine	Parkes - Narromine	461.243	Road	Public	Stop Signs
3622		Nanardine Lxing	Parkes - Narromine	463.008	Road	Private	Stop Signs
1082	100	Bogan Road Goonumbla	Parkes - Narromine	465.235	Road	Public	Half Boom Flashing Lights



ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1083		Wards Lane Goonumbla	Parkes - Narromine	468.363	Road	Public	Stop Signs
3627		Alectown West Lxing	Parkes - Narromine	472.507	Road	Private	Stop Signs
1084		Avondale Road Alectown West	Parkes - Narromine	473.903	Road	Public	Stop Signs
1085		Public Road Alectown West	Parkes - Narromine	476.769	Road	Public	Stop Signs
1086		Barber Lane Mickibri	Parkes - Narromine	479.878	Road	Public	Stop Signs
1087		Mickibri Road Mickibri	Parkes - Narromine	482.751	Road	Public	Stop Signs
3629		Mickibri Lxing	Parkes - Narromine	484.479	Road	Private	Stop Signs
3630		Mickibri Lxing	Parkes - Narromine	485.367	Road	Private	Stop Signs
3631		Mickibri Lxing	Parkes - Narromine	485.991	Road	Private	Stop Signs
3632		Mickibri Lxing	Parkes - Narromine	487.968	Road	Private	Stop Signs
3633		Mickibri Lxing	Parkes - Narromine	489.372	Road	Private	Stop Signs
1088		Trewilga Road Peak Hill	Parkes - Narromine	490.577	Road	Public	Stop Signs
1089	710	Railway Parade Peak Hill	Parkes - Narromine	493.922	Road	Public	Half Boom Flashing Lights
1090	711	Whitton Park Road Peak Hill	Parkes - Narromine	497.222	Road	Public	Half Boom Flashing Lights
1091	712	Mingelo Street Peak Hill	Parkes - Narromine	498.628	Road	Public	Half Boom Flashing Lights
1092	45	Tullamore Road Peak Hill	Parkes - Narromine	499.091	Road	Public	Half Boom Flashing Lights
1094	714	Bulgandramine Road Peak Hill	Parkes - Narromine	500.628	Road	Public	Half Boom Flashing Lights
1095		Mingerong Road Peak Hill	Parkes - Narromine	501.138	Road	Public	Stop Signs
1096		Barrabadeen Creek Road Peak Hill	Parkes - Narromine	503.677	Road	Public	Stop Signs
3635		Peak Hill Lxing	Parkes - Narromine	505.275	Road	Private	Stop Signs
3636		Peak Hill Lxing	Parkes - Narromine	508.334	Road	Private	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1097		McPhail Road Peak Hill	Parkes - Narromine	511.229	Road	Public	Stop Signs
1098	716	Tomingley West Road Tomingley West	Parkes - Narromine	515.784	Road	Public	Half Boom Flashing Lights
3638		Tomingley West Lxing	Parkes - Narromine	518.103	Road	Private	Stop Signs
3639		Tomingley West Lxing	Parkes - Narromine	518.946	Road	Private	Stop Signs
3640		Tomingley West Lxing	Parkes - Narromine	520.065	Road	Private	Stop Signs
3641		Tomingley West Lxing	Parkes - Narromine	521.246	Road	Private	Stop Signs
3642		Tomingley West Lxing	Parkes - Narromine	522.311	Road	Private	Stop Signs
1099		Tinks Lane Wyanga	Parkes - Narromine	524.914	Road	Public	Stop Signs
1100		Wyanga Road Wyanga	Parkes - Narromine	529.293	Road	Public	Stop Signs
3646		Timjelly Lxing	Parkes - Narromine	532.048	Road	Private	Stop Signs
3647		Timjelly Lxing	Parkes - Narromine	535.565	Road	Private	Stop Signs
1101		Fairview Siding Road Timjelly	Parkes - Narromine	537.959	Road	Public	Stop Signs
3648		Narwonah Lxing	Parkes - Narromine	538.864	Road	Private	Stop Signs
1102		Hargreaves Road Narwonah	Parkes - Narromine	540.208	Road	Public	Stop Signs
1103		Haberworth Lane Narwonah	Parkes - Narromine	542.619	Road	Public	Stop Signs
3649		Narwonah Lxing	Parkes - Narromine	544.067	Road	Private	Stop Signs
1104		Narwonah Siding Road Narwonah	Parkes - Narromine	546.787	Road	Public	Stop Signs
3650		Narwonah Lxing	Parkes - Narromine	548.571	Road	Private	Stop Signs
1105		Craigie Lea Lane Narwonah	Parkes - Narromine	549.049	Road	Public	Stop Signs
3651		Narwonah Lxing	Parkes - Narromine	549.893	Road	Private	Stop Signs
3652		Narwonah Lxing	Parkes - Narromine	550.700	Road	Private	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3653		Narromine Lxing	Parkes - Narromine	551.921	Road	Private	Stop Signs
3654		Narromine Lxing	Parkes - Narromine	552.450	Road	Private	Stop Signs
044		Tullamore Road Narromine	Parkes - Narromine	552.956	Road	Public	Primary Flashing Lights
3655		Private Lxing Narromine	Parkes - Narromine	553.025	Road	Private	Stop Signs
1107		Wingfield Road Narromine	Parkes - Narromine	554.548	Road	Public	Stop Signs
1108		Backwater Road Narromine	Parkes - Narromine	555.456	Road	Public	Stop Signs
1109		Dandaloo Road Narromine	Parkes - Narromine	556.093	Road	Public	Stop Signs
1867		Dandaloo Road Narromine	Parkes - Narromine	556.108	Road	Public	Stop Signs
059		Dandaloo Street Narromine	Main West	497.629	Road	Public	Half Boom Flashing Lights
058		Manildra Street Narromine	Main West	496.784	Road	Public	Primary Flashing Lights
715		Tatitha Road Narromine	Main West	489.683	Road	Public	Stop Signs
714		Lagoon Creek Road Dubbo	Main West	477.372	Road	Public	Stop Signs
056		Victoria Street / Mitchell Highway Dubbo	Main West	464.195	Road	Public	Half Boom Flashing Lights
<b>Turrawan to North Star</b>							
3051		Sandy Creek Lane Narrabri Junction	Werris Creek - Mungindi	557.324		Private	Stop Signs
3052		Narrabri Junction Lxing	Werris Creek - Mungindi	561.802		Private	Stop Signs
537	526	Old Turrawan Road Narrabri Junction	Werris Creek - Mungindi	564.940		Public	Primary Flashing Lights Axle Counter
538		Fraser Street Narrabri Junction	Werris Creek - Mungindi	565.575		Public	Stop Signs
539		McKenzie Street Narrabri	Werris Creek - Mungindi	566.915		Public	Stop Signs
1904		McKenzie Street Narrabri	Werris Creek - Mungindi	566.970		Public	Pedestrian Maze

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
540	543	Fitzroy Street Narrabri	Werris Creek - Mungindi	568.850		Public	Half Boom Flashing Lights Axle Counter
541		Doyle Street Narrabri	Werris Creek - Mungindi	569.850		Public	Stop Signs
542		Stock Route Narrabri	Werris Creek - Mungindi	570.360		Public	Stop Signs
3053		Narrabri Lxing	Werris Creek - Mungindi	573.850		Private	Stop Signs
3054		Narrabri Lxing	Werris Creek - Mungindi	575.920		Private	Stop Signs
3055		Narrabri Lxing	Werris Creek - Mungindi	578.080		Private	Stop Signs
3056		Narrabri Lxing	Werris Creek - Mungindi	580.444		Private	Stop Signs
3057		Edgeroi Lxing	Werris Creek - Mungindi	584.625		Private	Stop Signs
3058		Edgeroi Lxing	Werris Creek - Mungindi	585.000		Private	Stop Signs
3059		Bobbiwaa Lxing	Werris Creek - Mungindi	588.611		Private	Stop Signs
3060		Bobbiwaa Lxing Tarlee Access	Werris Creek - Mungindi	589.686		Private	Stop Signs
543	729	Tarlee Road Bobbiwaa	Werris Creek - Mungindi	593.353		Public	Half Boom Flashing Lights Axle Counter
3061		Bobbiwaa Lxing	Werris Creek - Mungindi	595.052		Private	Stop Signs
1827		Moree Road Bobbiwaa	Werris Creek - Mungindi	596.638		Public	Stop Signs
544		Galathera Road Bobbiwaa	Werris Creek - Mungindi	598.577		Public	Stop Signs
545		The Clump Crossing Bobbiwaa	Werris Creek - Mungindi	602.982		Public	Stop Signs
546		Duncombers Road (Ten Mile Lane) Bellata	Werris Creek - Mungindi	609.301		Public	Stop Signs
547		Tremayne Property Crossing Bellata	Werris Creek - Mungindi	613.088		Public	Stop Signs
548		Sports Ground Crossing Bellata	Werris Creek - Mungindi	613.701		Public	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
549	546	Millie Road Bellata	Werris Creek - Mungindi	616.045		Public	Half Boom Flashing Lights Axle Counter
550		Old Newell Highway Bellata	Werris Creek - Mungindi	617.506		Public	Stop Signs
3065		Bellata Lxing	Werris Creek - Mungindi	621.150		Private	Stop Signs
552	731	Penneys Road Penneys Road	Werris Creek - Mungindi	625.509		Public	Half Boom Flashing Lights Axle Counter
1828		Waterloo Road Waterloo Creek	Werris Creek - Mungindi	627.927		Public	Stop Signs
553		Merimbula (Kanimbla) Road Waterloo Creek	Werris Creek - Mungindi	631.166		Public	Stop Signs
3066		Gurley Lxing	Werris Creek - Mungindi	634.531		Private	Stop Signs
554	730	Gurley Creek Road Gurley	Werris Creek - Mungindi	635.705		Public	Half Boom Flashing Lights
555		Silo Access Road Gurley	Werris Creek - Mungindi	636.337		Public	Stop Signs
556		Coomooma Crossing Gurley	Werris Creek - Mungindi	641.113		Public	Stop Signs
557		Gurley Settlers Road Gurley	Werris Creek - Mungindi	643.627		Public	Stop Signs
3067		Gurley Lxing	Werris Creek - Mungindi	648.118		Private	Stop Signs
1829		Gurley Lxing	Werris Creek - Mungindi	649.424		Public	Stop Signs
558	519	Tapscott Road Moree	Werris Creek - Mungindi	658.027		Public	Half Boom Flashing Lights
559	520	Burrington Road Moree	Werris Creek - Mungindi	659.800		Public	Half Boom Flashing Lights
560	524	Bullus Drive Moree	Werris Creek - Mungindi	664.333		Public	Half Boom Flashing Lights
561	523	Alice Street Moree	Werris Creek - Mungindi	665.846		Public	Half Boom Flashing Lights
3068		Tycannah Street Moree	Werris Creek - Mungindi	666.731		Private	Stop Signs
562		Gwydirfield Road Moree	Werris Creek - Mungindi	669.900		Public	Stop Signs
3069		Moree Lxing	Werris Creek - Mungindi	671.015		Private	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3070		Moree Lxing	Werris Creek - Mungindi	672.600		Private	Stop Signs
3071		Camurra Lxing	Werris Creek - Mungindi	674.450		Private	Stop Signs
563		The Rocks Lxing Camurra	Werris Creek - Mungindi	675.805		Public	Stop Signs
564		Pallamallawa Road Camurra	Werris Creek - Mungindi	676.630		Public	Stop Signs
143	522	Newell Highway Camurra	Werris Creek - Mungindi	677.832		Public	Primary Flashing Lights
3149		Camurra Lxing	Camurra - Boggabilla	679.200		Private	Stop Signs
3150		Camurra Lxing	Camurra - Boggabilla	680.720		Private	Stop Signs
3151		Camurra Lxing	Camurra - Boggabilla	682.785		Private	Stop Signs
3152		Camurra Lxing	Camurra - Boggabilla	684.899		Private	Stop Signs
1841		Camurra Lxing	Camurra - Boggabilla	686.387		Public	Stop Signs
1842		Camurra Lxing	Camurra - Boggabilla	686.451		Public	Stop Signs
3153		Camurra Lxing	Camurra - Boggabilla	689.494		Private	Stop Signs
3154		Coolleearlee Lxing	Camurra - Boggabilla	692.789		Private	Stop Signs
909		Wongabindie Road Coolleearlee	Camurra - Boggabilla	693.959		Public	Give Way Signs
910		Calimpa – County Boundary Road Coolleearlee	Camurra - Boggabilla	700.932		Public	Give Way Signs
3156		Milguy Lxing	Camurra - Boggabilla	704.694		Private	Stop Signs
911	738	County – Boundary Road Milguy	Camurra - Boggabilla	706.550		Public	Half Boom Flashing Lights Axle Counter
912		Alma Lane Milguy	Camurra - Boggabilla	710.961		Public	Stop Signs
3160		Crooble Lxing	Camurra - Boggabilla	716.359		Private	Stop Signs
913		Gil Gil Creek Road Crooble	Camurra - Boggabilla	717.020		Public	Stop Signs

ALCAM ID	Cerberus ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
915	740	Crooble Road Crooble	Camurra - Boggabilla	718.865		Public	Half Boom Flashing Lights Axle Counter
3161		Crooble Lxing	Camurra - Boggabilla	721.155		Private	Give Way Signs
916		Yamboon Road Crooble	Camurra - Boggabilla	724.890		Public	Stop Signs
3162		Crooble Lxing	Camurra - Boggabilla	727.430		Private	Stop Signs
917	741	Croppa Moree Road Croppa Creek	Camurra - Boggabilla	730.335		Public	Half Boom Flashing Lights Axle Counter
3164		Croppa Creek Lxing	Camurra - Boggabilla	732.555		Private	Stop Signs
918	742	Buckie Road Croppa Creek	Camurra - Boggabilla	733.944		Public	Half Boom Flashing Lights Axle Counter
		Buckie Road Croppa Creek	Camurra - Boggabilla	733.951	Pedestrian	Public	Automatic Gates
919		Plevna Road Murgo	Camurra - Boggabilla	736.453		Public	Stop Signs
920		Murgo Access Road	Camurra - Boggabilla	739.332		Public	Stop Signs
921		Tumba Road Murgo	Camurra - Boggabilla	742.842		Public	Stop Signs
3165		North Star Lxing	Camurra - Boggabilla	744.965		Private	Stop Signs
3166		North Star Lxing	Camurra - Boggabilla	747.055		Private	Stop Signs
4378		North Star Lxing	Camurra - Boggabilla	749.250		Private	Stop Signs
3168		North Star Lxing	Camurra - Boggabilla	752.730		Private	Stop Signs
922	744	Croppa Creek Road North Star	Camurra - Boggabilla	755.578		Public	Half Boom Flashing Lights Axle Counter
3169		North Star Lxing	Camurra - Boggabilla	756.426		Private	Stop Signs
923	745	I B Bore Road North Star	Camurra - Boggabilla	758.252		Public	Half Boom Flashing Lights Axle Counter

## 1.7 Maximum Permitted Speeds and Permanent Speed Restrictions

Refer the Route Access Standard - Interstate Network Section Pages D12 and Intrastate Network Section I4 & I6 for all speed information.

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*EXCEPTION: 4-5 times annually Interstate Intermodals run via West, when 1500m trains are allowed, but only able to cross at Merrygoen. (see Merrygoen long trains procedure)*

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## 1.8 Maximum Train Length

The maximum train length is as per Planning approval.

## 1.9 Structure Clearances

Refer Route Access Standards for Rolling Stock Outlines.



## 1.10 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.

## 1.11 Wayside Monitoring Systems

There are no wayside monitoring systems in place in this section.

## 1.12 Ruling Gradients

Down	1 in 52
Up	1 in 87

## 1.13 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](https://extranet.artc.com.au/eng_network-config_cd.html)

## 1.14 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 LOW Unsuitable
Turrawan	548.700	552.000	Single Main	Bi-Directional	Both	Inadequate sighting
Narrabri Junction	562.000	563.400	Single Main	Bi-Directional	Both	Over Bridge
Narrabri Junction	565.500	569.000	Single Main	Bi-Directional	Both	Inadequate sighting
Narrabri North	571.100	573.300	Single Main	Bi-Directional	Both	Over Bridge
Nights Hill	578.800	581.400	Single Main	Bi-Directional	Both	Inadequate sighting
Bellata	617.600	623.500	Single Main	Bi-Directional	Both	Inadequate sighting
Pennys Road	626.700	627.050	Single Main	Bi-Directional	Both	Inadequate sighting
Gurley Creek	640.700	642.700	Single Main	Bi-Directional	Both	Inadequate sighting
Moree Yard	664.500	667.150	Single Main	Bi-Directional	Both	Under Bridge
Camurra	672.450	677.025	Single Main	Bi-Directional	Both	Under Bridge
Crooble	717.050	719.150	Single Main	Bi-Directional	Both	Inadequate sighting
Croppa Creek	734.900	736.100	Single Main	Bi-Directional	Both	Under Bridge
Murgo	739.000	740.900	Single Main	Bi-Directional	Both	Inadequate sighting
Tikitere	745.500	747.600	Single Main	Bi-Directional	Both	Inadequate sighting
Bonny Ridge	748.050	749.600	Single Main	Bi-Directional	Both	Inadequate sighting
North Star	757.400	758.300	Single Main	Bi-Directional	Both	Inadequate sighting

## 1.15 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 Goobang North to Dubbo West Locations and Sections Information

### 2.1 Goobang Junction (exclusive)

Goobang Junction is the junction between the main line to Broken Hill and the branch lines to Forbes, Orange and Narromine.

Goobang Junction is a Rail Vehicle Detection location controlled from Network Control Centre South TOCO board.

Yard Limits for the Narromine line are defined by Home signal GJ154.

Competent Workers must obtain a Train Authority from NCCN TOCO Board and then contact NCCS TOCO before departure.

Signal GJ153 is controlled by NCCS-TOCO board and GJ153 signal will only be cleared once in possession of a Train Authority.

Trains may depart through R-frame if required.

#### **Begin and End Train Order Signs**

An END TRAIN ORDER WORKING sign is located at 451.927km to indicate the end of Train Order Working in the Up direction.

A BEGIN TRAIN ORDER WORKING sign is located at 451.927km to indicate the start of Train Order Working in the Down direction.

#### **Brolgan Road East Level Crossing 449.774km**

Type F flashing lights, half booms and audible warning devices are provided at Brolgan Road East level crossing at 449.774km.

Down directional standard trackside signage is located at 449.114km.

Up directional standard trackside signage is located at 450.767km.

Emergency switches are provided to isolate the warning equipment in the event of a failure. The "Emergency Switch Boxes" are located on the Level crossing Equipment Hut and are opened by the emergency keys obtained from the ARTC Provisioning Centre at Parkes. The Level Crossing warning equipment must be operated in accordance with ARTC Network Rule ANGE 218 "Type F Level Crossing Management", ARTC Procedures ANPR 715 "Protecting Type F level crossing" and ANPR 717 Using Emergency Roadside Warning Equipment.

Manual operation switches are provided on the outside of the Level Crossing Equipment Hut. The manual operation switch is unlocked by SL key and provided for use by Competent Worker in accordance with ARTC Network Rule ANGE 218 "Type F Level Crossing Management", ARTC Procedures ANPR 715 "Protecting Type F level crossing".

## 2.2 Goobang North

### General Arrangements

Goobang North is a Train Order Interface location

Goobang Junction and Goobang North are discreet locations separated by back to back Start / End Train Order Working Signs.

There is no section between the locations.

Goobang North provides entry to the Parkes North West Link.

The Parkes North West Link is a siding location outside of Train Order Territory.

Parkes North West Link is managed operationally by the Pacific National Coordinator.

Trackwork within the North West Link must be authorised by the PN Coordinator and conducted under ARTC Network Rules ANWT 300 – Working in a shunting yard”.

### Begin and End Train Orders

An END TRAIN ORDER WORKING sign is located at 451.927km to indicate the End of Train Order Working in the Up direction.

A BEGIN TRAIN ORDER WORKING sign is located at 451.927km to indicate the Start of Train Order Working in the Down direction.

An END TRAIN ORDER WORKING sign is located at 449.640km North West Link 452.214km Main Line to indicate the End of Train Order Working in the Up direction.

A BEGIN TRAIN ORDER WORKING sign is located at 449.640km North West Link / 452.214km Main Line to indicate the Start of Train Order Working in the Down direction.

### Yard Limits

A YARD LIMIT sign is located at 455.444km to indicate the Goobang North yard limit in the Down direction.

A YARD LIMIT sign is located at 451.927km to indicate the Goobang yard limit in the Up direction.

A YARD LIMIT sign is located at 449.640km North West Link / 452.214km Main Line to indicate the Goobang North yard limit in the Down direction

### Shunt Limit

A SHUNT LIMIT sign is provided at 453.417km to indicate the Goobang North shunting limit in the Down direction.

### Point Machines

BB Points are located at 452.417km and provide access to the North West Link and are operated by push buttons and unlocked by Operators Key

### Operation of Points and Main Line Indicators (MLI)

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**NOTE:** To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds.

---

## Goobang North to Dubbo West Locations and Sections Information

**B MLI located at 452.685km**

Push button panels contain three push buttons (Goobang Jct, Parkes North West Link Clear and Indicator Cancel)

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**NOTE:** *Do Not Operate "Parkes North West Link Clear" button or proceed into siding without a Proceed Authority from the PNWY Coordinator.*

---

To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, level crossing will stop operating after two minutes, depress indicator clear button, the level crossing will commence operation, indicator will clear after booms have fully lowered.

**BM MLI located at 452.214km**

Push button panels contain two push buttons - Indicator Clear and Indicator Cancel

To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, level crossing will stop operating after two minutes, depress indicator clear button, the level crossing will commence operation, indicator will clear after booms have fully lowered.

**BNW MLI located at 449.640km North West Link / 452.224km Main Line**

Push button panels contain two push buttons - Indicator Clear and Indicator Cancel

To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, level crossing will stop operating after two minutes, depress indicator clear button, the level crossing will commence operation, indicator will clear after booms have fully lowered.

**Up Yard Limit Shunters Push Buttons and Board located at 455.444km**

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**NOTE:** *(PNWY Yard Trains must use pushbutton to call BB points reverse before passing this board)*

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Push button panels contain three push buttons - Goobang Jct Clear, Parkes North West Link Clear and Indicator Cancel

---

**NOTE:** *Do Not Operate "Parkes North West Link Clear" button or proceed into siding without a Proceed Authority from the PNWY Coordinator.*

---

To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, points free indicator will flash until points become free after two minutes. When a steady points free indicator is illuminated;

- For Goobang Jct depress Goobang Jct Clear button
- For PNWY depress Parkes North West Link Clear button

Points will move and Goobang Junction Set indicator or Parkes North West Link Set indicator will illuminate

**Shunter Pushbuttons**

Sydney Side (S) 449.640km North West Link

Push button panel contains two buttons - Level Crossing Start and Level Crossing Cancel

## Goobang North to Dubbo West Locations and Sections Information

## Level Crossing Start

Press Level Crossing Start Button only for a minimum of 2 seconds when train is ready to proceed and wait for Booms to be fully lowered. The level crossing will cancel once the train is clear of the crossing.

## Level Crossing Cancel

After Level Crossing Start Button has been pressed, press level crossing Cancel button for a minimum of 2 seconds before train proceeds to cancel the level crossing.

## Sydney Side (M) 452.214km Main Line

Push button panel contains two buttons - Level Crossing Start and Level Crossing Cancel

## Level Crossing Start

Press Level Crossing Start Button only for a minimum of 2 seconds when train is ready to proceed and wait for Booms to be fully lowered. The level crossing will cancel once the train is clear of the crossing.

## Level Crossing Cancel

After Level Crossing Start Button has been pressed, press level crossing Cancel button for a minimum of 2 seconds before train proceeds to cancel the level crossing.

**Supplementary Signage**

Change of Kilometrage sign is located on the North West Link at 449.640km / 452.214km Main Line.

Drivers Do Not Pass This Point without an Authority from the Pacific National PNWY Coordinator (North West Link 449.640km)

**Henry Parkes Way Level Crossing (Condobolin Road) 452.470km**

Type F flashing lights, audible warning device and booms are provided at Henry Parkes Way (Condobolin Road) level crossing at 452.470km.

Down directional trackside signage is located at 451.210km on the Main Line and 449.630km on the North West Link line.

Up directional trackside signage is located at 453.796km on the Main Line.

RMS Advance Warning Signage is located on the East and West approaches to Henry Parkes Way level crossing.

**Manual Operation Switch for Henry Parkes Way level crossing**

A manual operation switch for use by Competent Workers in accordance with the instructions detailed in ARTC Network Rule ANGE 218 is installed on the side of Henry Parkes Way (Condobolin Road) level crossing hut.

Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use.

The warning equipment is automatically controlled by Axle Counters for Up and Down rail traffic movements.

## Goobang North to Dubbo West Locations and Sections Information

**Back Trundle Rd Level Crossing 454.474km**

Type F flashing lights, audible warning device and booms are provided at Back Trundle Rd level crossing at 454.474km.

Down directional trackside signage is located at 453.496km on the Main Line.

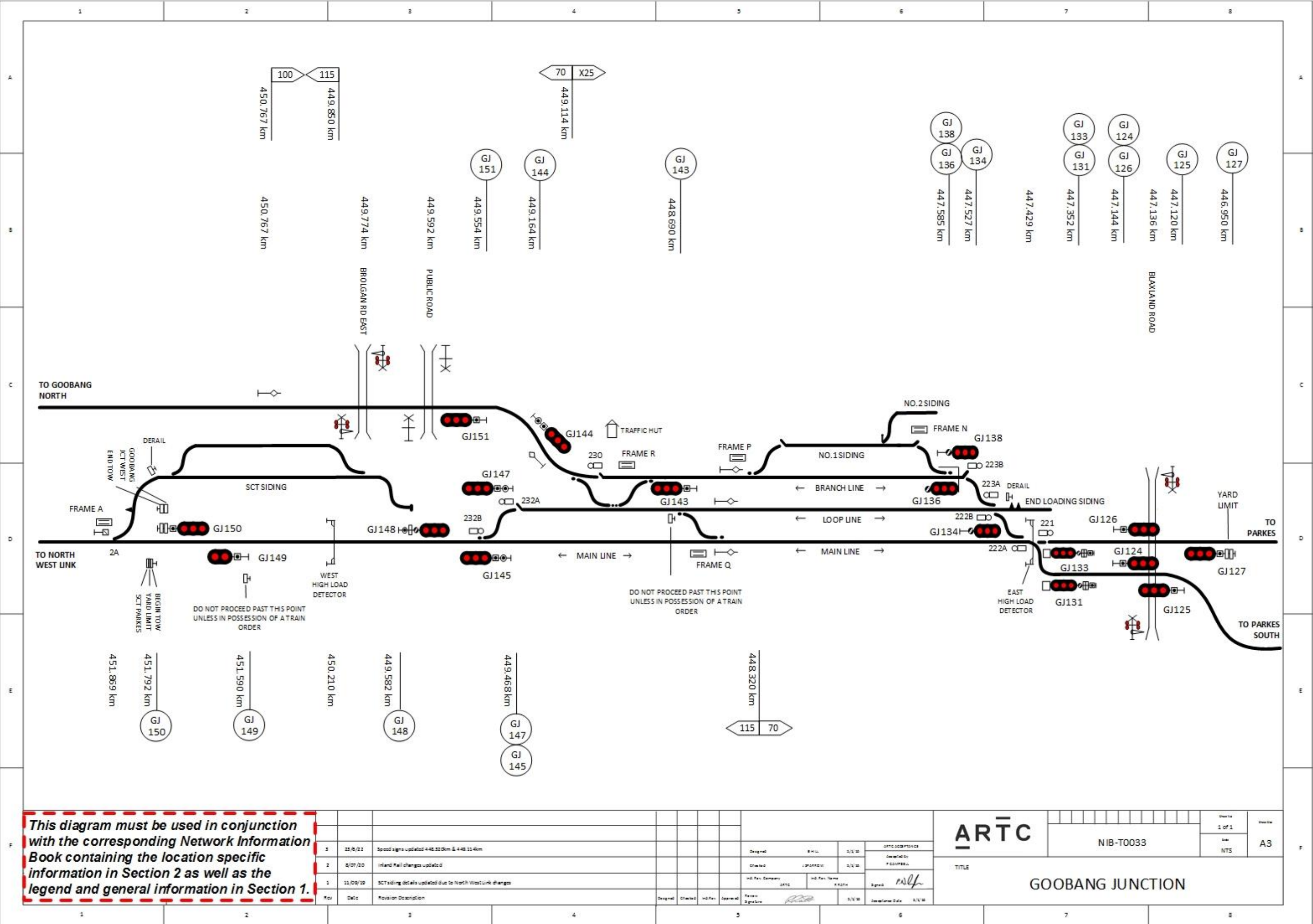
Up directional trackside signage is located at 455.444km on the Main Line.

A manual operation switch for use by Competent Workers in accordance with the instructions detailed in ARTC Network Rule ANGE 218 is installed on the side of Back Trundle Road level crossing.

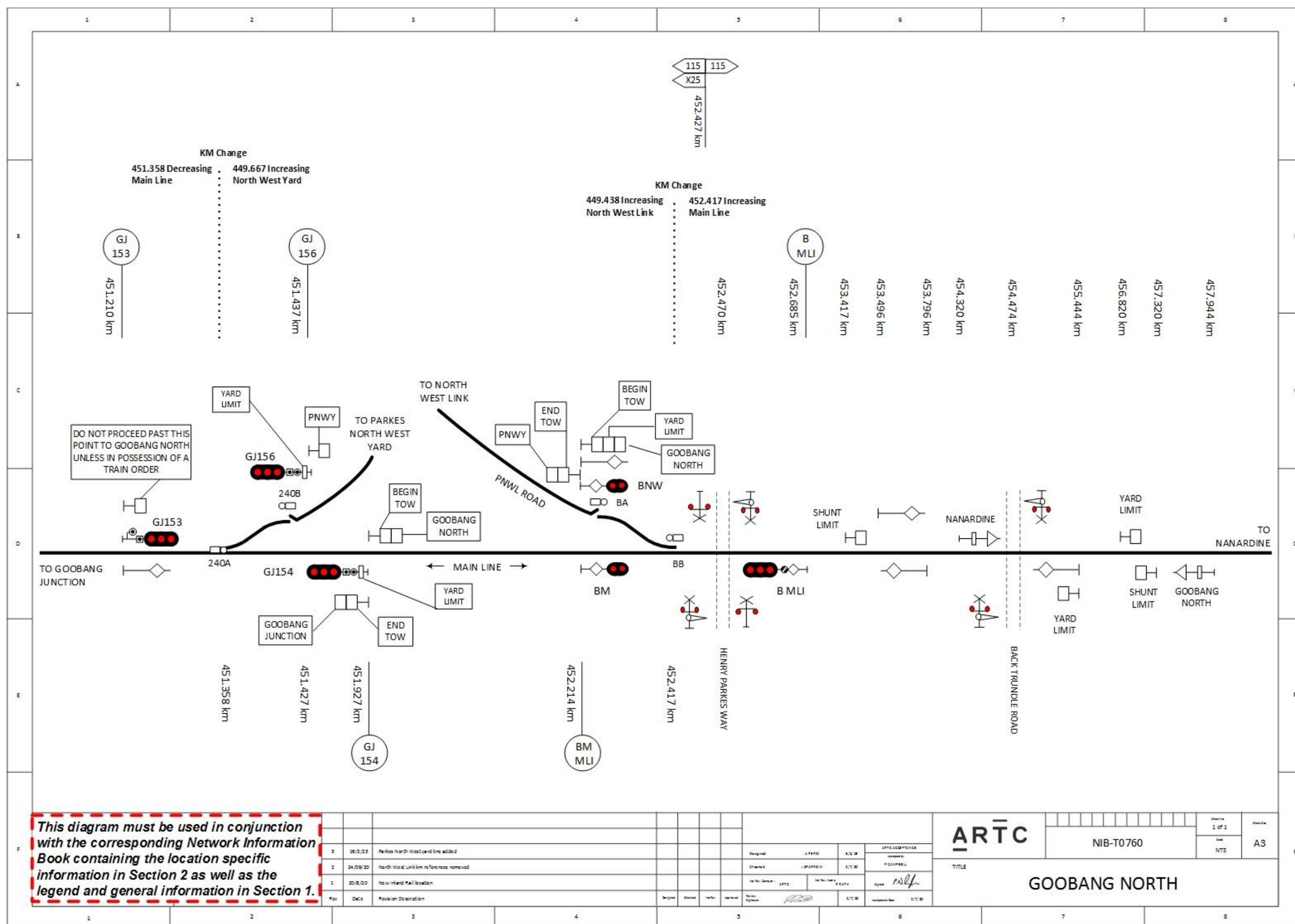
Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications will not be cancelled automatically when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use. The warning equipment is automatically controlled by Axle Counters for Up and Down rail traffic movements.





### Goobang North to Dubbo West Locations and Sections Information



## 2.3 Nanardine (NND)

### General Arrangements

Nanardine is a Train Order location with a crossing loop.

Crossing Loop length is 1925m

### Main Line Indicators (MLI)

"A" MLI is located at 458.256km for Down direction rail traffic

"B" MLI is located at 460.625km for Up direction rail traffic

### Yard Limits

A YARD LIMIT sign is located at 456.820km to indicate the Nanardine Yard Limit in the Down direction.

A YARD LIMIT sign is located at 462.111km to indicate the Nanardine Yard Limit in the Up direction.

### Shunt Limit Signs

A SHUNT LIMIT sign is provided at 461.611km to indicate the Nanardine Shunting Limit in the Down direction.

A SHUNT LIMIT sign is provided at 457.320km to indicate the Nanardine Shunting Limit in the Up direction.

### Points Machines

"A" Points are located at 458.320km and provide access to the Loop and are operated by push buttons and unlocked by Operators Key.

"B" Points are located at 460.611km and provide access to the Loop and are operated by push buttons and unlocked by Operators Key

### Point Indicators

"AM" (main line) is located at 458.531km and "BM" (main line) is located at 460.456km

"AS" (loop) is located at 458.531km and "BS" (loop) is located at 460.456km

### Operation of Points and Main Line Indicators

"A" and "B" MLI push button panels contain three push buttons - Main Clear, Loop Clear and Indicator Cancel.

To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, points free indicator will flash until points become free after two minutes. When a steady points free indicator is illuminated;

- For Main Line depress "Main Clear" button
- For Loop depress "Loop Clear" button

Points will operate and indicator will clear

"AS" and "BS" push button panels contain two push buttons - Indicator Clear and Indicator Cancel.

## Goobang North to Dubbo West Locations and Sections Information

To operate a button depress it for 2 seconds, insert Operators Key, depress the “Indicator Cancel” button, the points free indicator will flash until points become free after 2 minutes. When a steady points free indicator is illuminated, depress the “Indicator Clear” button. Points will operate and indicator will clear

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position after rail traffic has occupied and then is clear of the point track circuit, the points will return to normal position, after a time delay of 45 seconds.

The power operated points are fitted with manual “hand throw” levers, the locking lever is inscribed “manual” and “power” and the operating lever is inscribed “normal” and “reverse”.

To manually operate the points, the EOL key must first be obtained from the EOL box fitted to the outer wall of the respective interlocking location located near the points. The EOL key should be inserted into the EOL slot in the point machine and turned to release the lock lever.

The lock lever should then be moved from the “power” position to the “manual” position this will release the manual operation lever. The operating lever can then be moved from the “normal” to the “reverse” position or vice versa.

### Through Movements

The MLIs will normally display a pulsating white aspect and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” train to pass through Nanardine at permitted line speed on the main line.

### Entry into the Loop

For movements into the loop, the train must be brought to a stand short of “A” or “B” MLI. Press the “Cancel” button to place the opposing MLIs to Red. Following the expiry of 2 minutes the points will become free to operate the loop. The Competent Worker must ensure that the “Points Free” light is displayed and then press the “Loop Clear” button. Once the points have completed their movement, the point’s free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights allowing movement into the loop.

To cancel the movement into the loop, press “Indicator Cancel” button, which will result in the white angled lights being extinguished. The points will self-restore to normal once they become free. After the points have been normalised, with pressing of the “Main Clear” button the MLI will clear to pulsating white.

### Exit from the Loop

To exit the loop, first press the “Indicator Cancel” button provided in the push button panel near the Point Indicator. This will result in replacement of the Point Indicator to red and after a 2-minute time delay, will release the points. The point’s free indicator will flash. Press the “Indicator Clear” button provided in “BS” or “AS” pushbutton panel, once the points have moved and are detected, the Point Indicator will then display a white arrow allowing movement onto the main line.

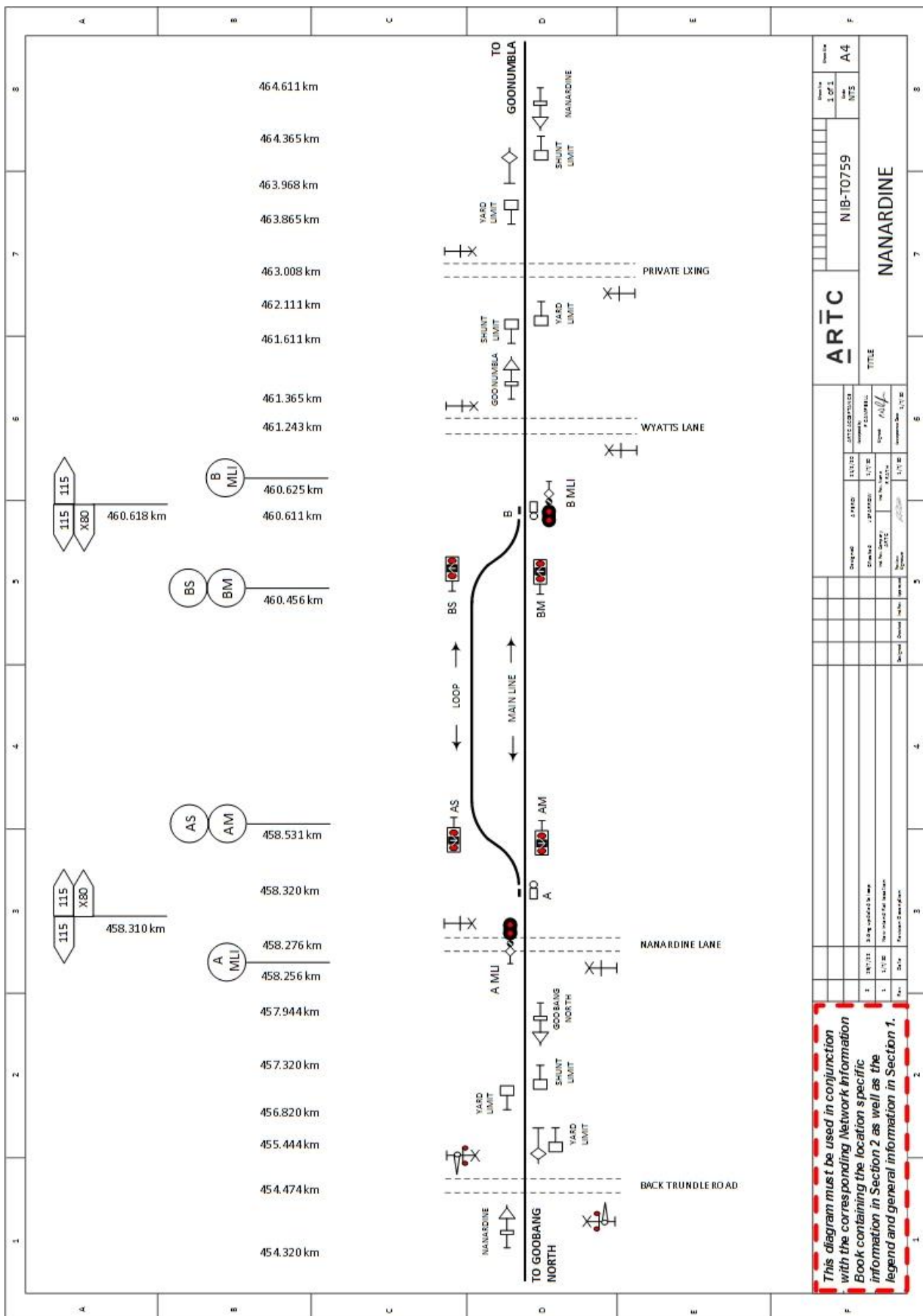
To cancel the movement out of the loop, press “Indicator Cancel”, this will result in extinguishing of the White Arrow and the display of the red aspect on the Point Indicator. The points will be self-

Goobang North to Dubbo West Locations and Sections Information

restored to normal once they become free. Press “Indicator Clear” at this instance to restore the main line indicator to pulsating white.



## Goobang North to Dubbo West Locations and Sections Information



## 2.4 Goonumbla (GNM)

### General Arrangements

Goonumbla is a Train Order location, with a siding that is clear of Train Order Territory.

North Parkes Mine siding length 837m.

### Yard Limits

A YARD LIMIT sign is located at 463.865km to indicate the Goonumbla yard limit in the Down direction.

A YARD LIMIT sign is located at 467.829km to indicate the Goonumbla yard limit in the Up direction.

### Shunt Limits

A SHUNT LIMIT sign is provided at 467.329km to indicate the Goonumbla shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 464.365km to indicate the Goonumbla shunting limit in the Up direction.

### Advance Pushbuttons

An Advance Pushbutton is located at 463.365km. A sign is provided stating "STOPPING TRAINS USE PUSHBUTTON TO CALL POINTS TO REVERSE BEFORE PASSING THIS POINT."

The buttons are Main Clear, Siding Clear and Indicator Cancel.

Inscription on Inside of Door

DO NOT OPERATE UNLESS IN POSSESSION OF A TRAIN ORDER TO PROCEED

Insert Operator's Key, depress "Indicator Cancel" button for a minimum of 2 seconds, Points Free Indicator will flash until points become free after 2 Minutes. When a Steady Points Free Indicator is illuminated:

- For Main Line - Depress 'Main Clear' Button
- For Siding - Depress 'Siding Clear' Button

Points will move and 'Main Set' or 'Siding Set' indicator will clear.

### Shunters Pushbutton - Bogan Road Level Crossing

Down side shunters pushbutton is located at 465.255km.

Up side shunters pushbutton is located at 465.215km.

### Level Crossing Start

Press "level crossing start" button when train is to proceed and wait for booms to be fully lowered. The level crossing warning equipment will cancel once the train is clear of the level crossing.

### Level Crossing Cancel

After "level crossing start" button has been pressed, press the "level crossing cancel" button before the train proceeds, to cancel the level crossing operation.

MAIN LINE INDICATORS (MLI's)

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**NOTE:** *To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds.*

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#### **“Y” MLI**

“Y” MLI is located on the Up side of the line at 465.255km. The MLI displays either a;

- Pulsating white light, or
- Steady red light indication.

#### **“Y” MLI Pushbuttons**

1. Insert operators key
2. Depress indicator cancel button

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**NOTE:** *Bogan Road level crossing will stop operating after a 2 minute time release.*

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3. Depress MLI indicator clear button

Bogan Road level crossing will commence operation.

“Y” MLI Indicator will clear after the level crossing warning equipment has operated and the booms have fully lowered.

#### **“C” MLI**

“C” MLI is located on the Down side of the line at 465.591km. The MLI displays a;

- Left hand angled white lights to North Parkes Mine siding,
- Pulsating white light to the Main Line, or
- Steady red light indication.

#### **“C” MLI Pushbuttons**

“C” MLI pushbuttons are located at 465.307km.

The buttons are Main Clear, Siding Clear and Indicator Cancel.

1. Insert operators key
2. Depress MLI indicator cancel button

Points free indicator will flash until points become free after a 2 minute time release.

3. When a steady points free indicator is illuminated:
  - Depress “Main Clear” button - for Main Line, or
  - Depress “Siding Clear” button - for siding.

Points will operate to the required position and “C” MLI indicator will clear for the required route.

#### **“B” MLI**

“B” MLI is located on the Up side of the main line at 466.591km. The MLI displays a;

- Right Hand angled white lights to North Parkes Mine siding,
- Pulsating White light Main Line, or
- Steady Red indication.



**“B” MLI Pushbuttons**

The buttons are;

- “B” MLI (Main) and “Y” MLI clear
- “B” MLI (Main) only clear
- “B” MLI (Siding) only clear
- Indicator cancel.

1. Insert operators key
2. Depress “indicator cancel” button

Points free indicator will flash until points become free after a 2 minute time release.

3. When a steady points free indicator is illuminated:
  - Depress “B” MLI (Main) and “Y” MLI clear button for Main Line, or
  - Depress “B” MLI (Main) only clear button for shunt onto Main Line only, or
  - Depress “B” MLI (Siding) only clear button for Siding.

Points will operate to the required position and “B” MLI indicator will clear for the required route.

**Point Indicators****“CS” Point Indicator**

“CS” Point Indicator is located on the North Parkes Mine siding at 465.403km.

If the indicator displays:

- a red light, the points are not set, or
- a white arrow, the points are set and locked for the route indicated by the direction of the arrow.

**“CS” Point Indicator Pushbuttons**

“CS” Point Indicator pushbuttons are located adjacent to the “CS” Point Indicator.

The buttons are Main Clear, CS Clear and Indicator Cancel.

1. Insert operators key
2. Depress indicator cancel button

Points free indicator will flash until points become free after a 2 minute time release.

3. When a steady points free indicator is illuminated:
  - Depress Main Clear button - for Main Line, or
  - Depress “CS” Clear button - for Shunt onto Main Line.

Points will operate to the required position and point indicator will display a white arrow.

**“CM” Point Indicator**

“CM” Point Indicator is located adjacent to the Main line at 465.403km.

If the indicator displays:

## Goobang North to Dubbo West Locations and Sections Information

- a red light, the points are not set, or
- a white arrow, the points are set and locked for the route indicated by the direction of the arrow.

**“BM & BS” Point Indicators****BS Point Indicator**

“BS” Point Indicator is located adjacent to the siding at 466.240km.

If the indicator displays:

- a red light, the points are not set, or
- a white arrow, the points are set and locked for the route indicated by the direction of the arrow.

**“BS” Point Indicator Pushbuttons**

“BS” Point Indicator pushbuttons are located adjacent to the “BS” Point Indicator.

The buttons are Indicator Clear and Indicator Cancel.

1. Insert operators key
2. Depress indicator cancel button

Points free indicator will flash until points become free after a 2 minute time release.

3. When a steady points free indicator is illuminated:
  - Depress Indicator Clear button - for Main Line.

Points will operate to the required position and point indicator will display a white arrow.

**Bogan Road Level Crossing 465.235km**

Type F flashing lights, audible warning device and booms are provided at Bogan Road Level Crossing located at 465.235km.

Down directional trackside signage is located at 463.968km on the Main line.

Up directional trackside signage is located at 466.591km on the Main line.

Up directional trackside signage is located at 466.330km on the Main line.

Up directional trackside signage is located at 466.240km on the North Parkes Mine siding.

The warning equipment is automatically controlled by track circuits for Up and Down direction rail traffic movements.

A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 is installed on the side of Bogan Road level crossing hut. Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use.

*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 Alectown West (ALC)**

### **General Arrangements**

Alectown West is a Train Order location with a Maintenance Siding that is clear of Train Order Territory.

Siding length 622m

### **Yard Limits**

A YARD LIMIT sign is located at 471.323km to indicate the Alectown West Yard Limit in the Down direction.

A YARD LIMIT sign is located at 4475.145km to indicate the Alectown West Yard Limit in the Up direction.

### **Shunt Limit**

A SHUNT LIMIT sign is provided at 474.645km to indicate the Alectown West Shunt Limit in the Down direction.

A SHUNT LIMIT sign is provided at 471.823km to indicate the Alectown West Shunt Limit in the Up direction.

### **Frames**

Frame D is located on the Down side of the Main line adjacent to 1D points at 472.823km and provides access to the Maintenance siding.

Frame D is unlocked by key from Operators Lock that is located next to the frame. The Operators Lock D is unlocked by Operators Key.

### **Mechanical Point Indicator (MPI)**

An MPI is located adjacent 1D points at 472.823km

### **Siding**

The Siding is fitted with catch points (2D) located at 472.898km and is interlocked with the operation of Frame D

### **Emergency Equipment Box**

An emergency equipment box is provided on the Down side of the Main line.

The box is secured by SL lock.

## Goobang North to Dubbo West Locations and Sections Information



## 2.6 Mickibri (MCB)

### General Arrangements

Mickibri is a Train Order location with a Maintenance Siding that is clear of Train Order Territory

Siding length 300m

### Yard Limits

A YARD LIMIT sign is located at 480.738km to indicate the Mickibri Yard Limit in the Down direction.

A YARD LIMIT sign is located at 483.999km to indicate the Mickibri Yard Limit in the Up direction.

### Shunt Limit

A SHUNT LIMIT sign is provided at 483.499km to indicate the Mickibri Shunt Limit in the Down direction.

A SHUNT LIMIT sign is provided at 481.238km to indicate the Mickibri Shunt Limit in the Up direction.

### Frames

Frame B is located on the Down side of the Main line adjacent to 1B points at 482.026km and provides access to the Maintenance siding.

Frame B is unlocked by key from Operators Lock that is located next to the frame. The Operators Lock B is unlocked by Operators Key.

### Mechanical Point Indicator (MPI)

An MPI is located adjacent 1B points at 482.026km

### Maintenance Siding

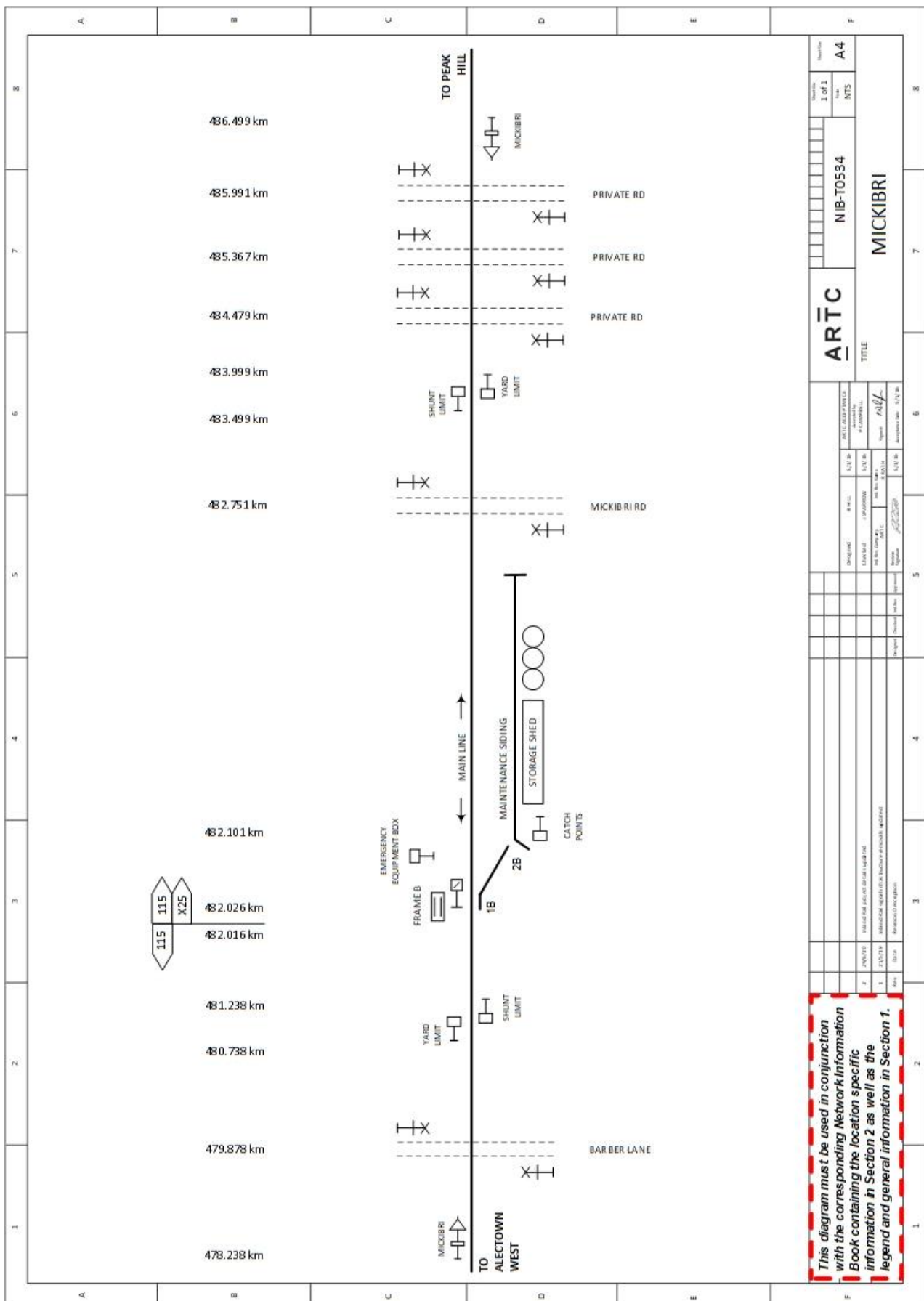
The Maintenance Siding is fitted with catch points (2B) located at 482.101km and is interlocked with the operation of Frame B

### Emergency Equipment Box

An emergency equipment box is provided on Down side of the Main line.

The box is secured by SL lock.

## Goobang North to Dubbo West Locations and Sections Information



## 2.7 Peak Hill (PKH)

### 2.7.1 General Arrangements

Peak Hill is a Train Order location.

Peak Hill has the following:

Peak Hill South loop, length 1945m.

Peak Hill siding, which is clear of train order territory, length 1106m

#### **Yard Limits**

A YARD LIMIT sign is located at 492.900km to indicate the Peak Hill yard limit in the Down direction.

A YARD LIMIT sign is located at 501.607km to indicate the Peak Hill yard limit in the Up direction.

#### **Shunt Limits**

A SHUNT LIMIT sign is provided at 499.922km to indicate the Peak Hill shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 493.400km to indicate the Peak Hill shunting limit in the Up direction.

#### **Advance Pushbuttons**

A Down Yard Limit Pushbutton is located at 492.900km and an Up Yard Limit Pushbutton is located at 501.607km. A sign is provided at both locations stating "STOPPING TRAINS USE PUSHBUTTON TO CALL POINTS TO REVERSE BEFORE PASSING THIS SIGN."

#### **Pushbuttons**

The Pushbuttons are Main Clear, Peak Hill South Loop Clear, Peak Hill Siding Clear and Indicator Cancel

### 2.7.2 Level Crossings

#### **Railway Parade 493.922km**

Type F flashing lights, audible warning device and booms are provided at the Railway Parade level crossing at 493.922km.

For Up direction trains "Y" MLI will provide a pulsating white indication indicating that Railway Parade level crossing will operate on approach.

#### *Shunters Pushbutton*

A shunters pushbutton is located at 494.137km on the Up side of the line.

A shunters pushbutton is located at 493.907km on the Down side of the line.

#### **Whitton Park Road 497.222km**

Type F flashing lights, audible warning device and booms are provided at the Whitton Park Road level crossing at 497.222km.

For Up direction trains "BM" MLI will provide a pulsating white indication indicating that Whitton Park Road level crossing will operate on approach.



## Goobang North to Dubbo West Locations and Sections Information

For Up direction trains “B” MLI will provide a pulsating white indication indicating that Whitton Park Road level crossing will operate on approach.

For Up direction trains “BS” MLI will provide a pulsating white indication indicating that Whitton Park Road level crossing will operate on approach.

*Shunters Pushbutton*

A shunters pushbutton is located at 497.185km on the Up side of the line.

**Mingelo Street 498.628km**

Type F flashing lights, audible warning device and booms are provided at Mingelo Street level crossing at 498.628km

For Up direction trains “F” MLI will provide a pulsating white indication indicating that Mingelo Street level crossing will operate on approach.

For Down direction trains “FM” MLI will provide a pulsating white indication indicating that Mingelo Street crossing will operate on approach.

For Down direction trains depart the siding, “FS” MLI will provide a pulsating white indication indicating that Mingelo Street crossing will operate on approach.

*Shunters Pushbutton*

A shunters pushbutton is located at 498.643km on the Up side of the line.

A shunters pushbutton is located at 498.500km on the Down side of the line.

**Tullamore Road 499.091km**

Type F flashing lights, audible warning device and booms are provided at Tullamore Road level crossing at 499.091km.

For Up direction trains “G” MLI will provide a pulsating white indication indicating that Tullamore Road level crossing will operate on approach.

For Down direction trains “X” MLI will provide a pulsating white indication indicating that Tullamore Road level crossing will operate on approach.

*Shunters Pushbutton*

A shunters pushbutton is located at 499.306km on the Up side of the line.

A shunters pushbutton is located at 498.976km on the Down side of the line.

**Bulgandramine Road 500.628km**

Type F flashing lights, audible warning device and booms are provided at Bulgandramine Road level crossing at 500.628km.

For Down direction trains “Z” MLI will provide a pulsating white indication indicating that Bulgandramine Road crossing will operate on approach.

*Shunters Pushbutton*

A shunters pushbutton is located at 500.408km on the Down side of the line.

A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 is installed on the side of each level crossing equipment hut. The manual operation switch MUST be kept closed and secured by an SL lock when not in use.

### *Level Crossing Start*

NOTE; To operate a button, depress it for 2 seconds.

Press “level crossing start” button only when train is ready to proceed and wait for booms to be fully lowered. The level crossing will cancel once the train is clear of the crossing.

### *Level Crossing Cancel*

After level crossing start button has been pressed, press the “level crossing cancel” button before the train proceeds, to cancel the level crossing operation.

Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The warning equipment is automatically controlled by axle counters for Up and Down train movements. If an axle counter incorrectly shows a section as occupied due to a miscount of axles, power failure or incorrect operation, the system must be reset by a Competent Infrastructure Representative. The axle counter must not be reset without the Network Controllers authorisation. The axle counter procedure for resetting of axle counters within Train Order Working Territory is specified within ARTC Signal Engineering Procedure ESI-05-03 axle counter TOW territory. Reset panels are mounted externally to the following signalling equipment huts Railway Parade, Whitton Park Road, Mingelo Street, Tullamore Road and Bulgandramine Road level crossings.

## **2.7.3 Main Line Indicators (MLI's)**

### **“Y” MLI**

“Y” MLI is located on the Up side of the line at 494.137km.

The MLI displays either a;

- Pulsating white light, or
- Steady red light indication.

### **“Y” MLI Pushbuttons**

- Indicator Clear
- Indicator Cancel

NOTE: To operate MLI pushbuttons, the button must be depressed for a minimum of 2 seconds. Insert operators key, depress indicator cancel button, level crossing will stop operating after two minutes, depress indicator clear button, the level crossing will commence operation, indicator will clear after booms have fully lowered.

### **“A” MLI**

“A” MLI is located on the Down side of the line at 494.390km.

The MLI displays either a;

- Pulsating white light,
- Steady yellow,
- Right Hand angled white lights to South Loop

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- Steady red light indication.

**"A" MLI Pushbuttons**

- Main Clear
- Peak Hill South Loop Clear
- Indicator Cancel

Insert operators key, depress indicator cancel button, points free indicator will flash up to a maximum of six minutes until points become free, when a points free indicator is illuminated.

- For Main line depress Main Clear button
- For South Loop depress Peak Hill South Loop Clear button

The points will operate and indicator will clear.

AM Point Indicator located on the Up side of the Main line at 494.554km

AS Point Indicator located on the Up side of the line in South Loop at 494.554km

**AS Pushbuttons**

- Indicator Clear
- Indicator Cancel

Insert operators key, depress indicator cancel button, points free indicator will flash up to a maximum of six minutes until points become free, when a points free indicator is illuminated

- For Main line depress Main Clear button
- For South Loop depress Peak Hill South Loop Clear button

The points will operate and indicator will clear.

CM Point Indicator located on the Up side of the Main line at 496.499km

CS Point Indicator located on the Up side of the line in South Loop at 496.499km

Insert operators key, depress indicator cancel button, points free indicator will flash up to a maximum of six minutes until points become free, when a points free indicator is illuminated.

- For Main line depress Main Clear button
- For South Loop depress Peak Hill South Loop Clear button

The points will operate and indicator will clear.

**"C" MLI**

"C" MLI is located on the Down side of the line at 496.664. The MLI displays a;

- Pulsating white light,
- Steady yellow or
- Steady red light indication.

**"C" MLI Pushbuttons**

"C" MLI pushbuttons are located at 496.664km.

The buttons are Main Clear, Peak Hill South Loop Clear and Indicator Cancel;

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Insert operators key, depress indicator cancel button, points free indicator will flash up to a maximum of six minutes until points become free, when a steady points free indicator is illuminated.

For Main line depress Main Clear button

For South Loop depress Peak Hill South Loop Clear button

The points will operate and indicator will clear.

**“B” MLI**

“B” MLI is located on the Up side of the main line at 497.185km. The MLI displays a;

- Right Hand angled white lights to Siding
- Pulsating White light,
- Steady Yellow or
- Steady Red indication.

**“B” MLI Pushbuttons**

The buttons are Main Clear, Peak Hill Siding Clear and Indicator cancel;

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a points free indicator is illuminated.

- For Main line depress Main Clear button
- For Peak Hill depress Peak Hill Clear button

The points will operate and indicator will clear and the crossing will commence operation and indicator will clear after booms have fully lowered.

**“BM” MLI**

“BM” MLI is located on the Down side of the main line at 497.363km. The MLI displays a;

- Pulsating White light,
- Steady Yellow or
- Steady Red indication.

**“BM” Pushbuttons**

The buttons are Indicator Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a steady points free indicator is illuminated depress main clear button, points will operate and indicator will clear and the crossing will commence operation and indicator will clear after booms have fully lowered.

**“BS” MLI**

“BS” MLI is located on the Up side of the siding at 497. 363km. The MLI displays a;

- Pulsating White light,
- Steady Yellow or

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- Steady Red indication.

**“BS” Pushbuttons**

The buttons are Indicator Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a steady points free indicator is illuminated depress main clear button, points will operate and the crossing will commence operation and indicator will clear after booms have fully lowered.

**“FM” MLI**

“FM” MLI is located on the Down side of the siding at 498.500km. The MLI displays a;

- Pulsating White light,
- Steady Yellow or
- Steady Red indication

**“FM” MLI Pushbuttons**

The buttons are Indicator Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a steady points free indicator is illuminated depress indicator clear button, points will operate and the crossing will commence operation and indicator will clear after booms have fully lowered.

**“FS” MLI**

“FS” MLI is located on the Up side of the Peak Hill Siding at 498.500km. The MLI displays a;

- Pulsating White light,
- Steady Yellow
- Steady Red indication.

**“FS” Pushbuttons**

The buttons are Indicator Clear, FS MLI Clear and Indicator Cancel;

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a steady points free indicator is illuminated.

- For Main line to Narromine depress Main Clear button
- To shunt on Main line only depress “FS” MLI clear button

The points will operate and indicator will clear and the crossing will commence operation and indicator will clear after 15 seconds. Indicators will clear after booms have fully lowered.

**“F” MLI**

“F” MLI is located on the Up side of the Main line at 498.634km.

The MLI displays a;

- Pulsating White light,
- Left Hand angled white lights to Peak Hill Siding

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- Steady Yellow or
- Steady Red indication

**"F" Pushbuttons**

The buttons are Main Clear, Peak Hill Siding Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, points free indicator will flash until points become free and level crossing will STOP operating after two minutes, when a steady points free indicator is illuminated.

- For Main line depress Main Clear button
- For Siding depress Peak Hill Siding Clear button

The points will operate and indicator will clear and the crossing will commence operation. Indicators will clear after booms have fully lowered.

**"X" MLI**

"X" MLI is located on the Down side of the main line at 498.976km.

The MLI displays a;

- Pulsating White light,
- Steady Yellow or
- Steady Red indication

**"X" Pushbuttons**

The buttons are Main Clear and Indicator Cancel

Insert operators key, depress indicator cancel button, level crossing will STOP operating after two minutes, depress indicator clear button, the crossing will commence operation. Indicators will clear after booms have fully lowered.

**"G" MLI**

"G" MLI is located on the Up side of the main line at 499.306km.

The MLI displays a;

- Pulsating White light,
- Steady Yellow or
- Steady Red indication

**"G" Pushbuttons**

The buttons are Main Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, level crossing will STOP operating after two minutes, depress indicator clear button, the crossing will commence operation, Indicators will clear after booms have fully lowered.

**"Z" MLI**

"Z" MLI is located on the down Up side of the line at 500.408km.

The MLI displays a;

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- Pulsating White light,
- Steady Red indication.

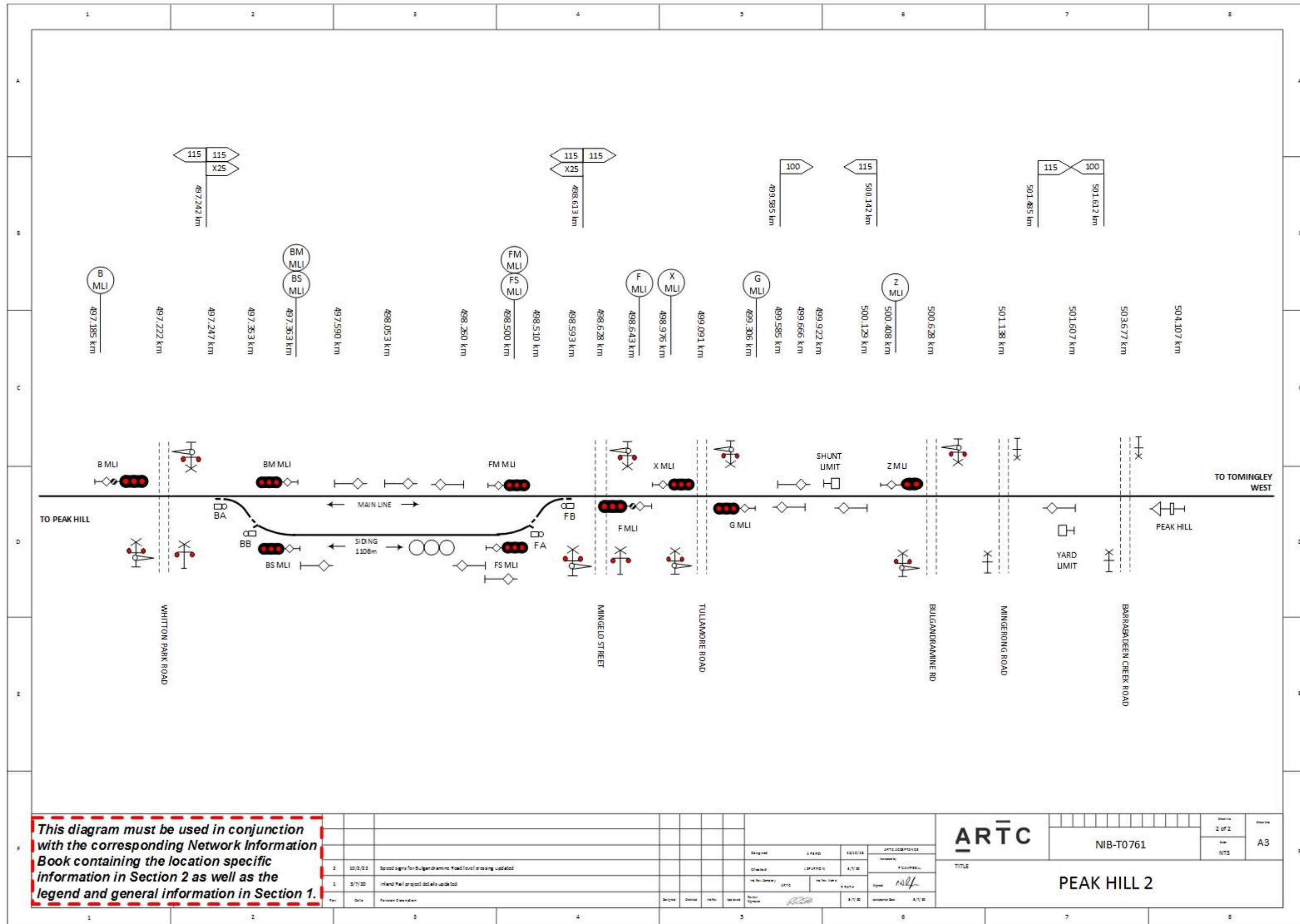
## “Z” Pushbuttons

The buttons are Indicator Clear and Indicator Cancel.

Insert operators key, depress indicator cancel button, level crossing will STOP operating after two minutes, depress indicator clear button, the crossing will commence operation. Indicators will clear after booms have fully lowered.

*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 Tomingley West (TLW)

### General Arrangements

Tomingley West is a follow-on location, not provided with crossing and passing facilities, in Train Order Working.

### Yard Limit

A YARD LIMIT sign is located at 514.810km to indicate the Tomingley West Yard Limit in the Down direction.

A YARD LIMIT sign is located at 516.758km to indicate the Tomingley West Yard Limit in the Up direction.

### Tomingley West Road Level Crossing

Type F flashing lights, bells and booms are provided at Tomingley West Road level crossing at 515.784km.

Down directional standard trackside signage is located at 514.810km.

Up directional standard trackside signage is located at 516.758km.

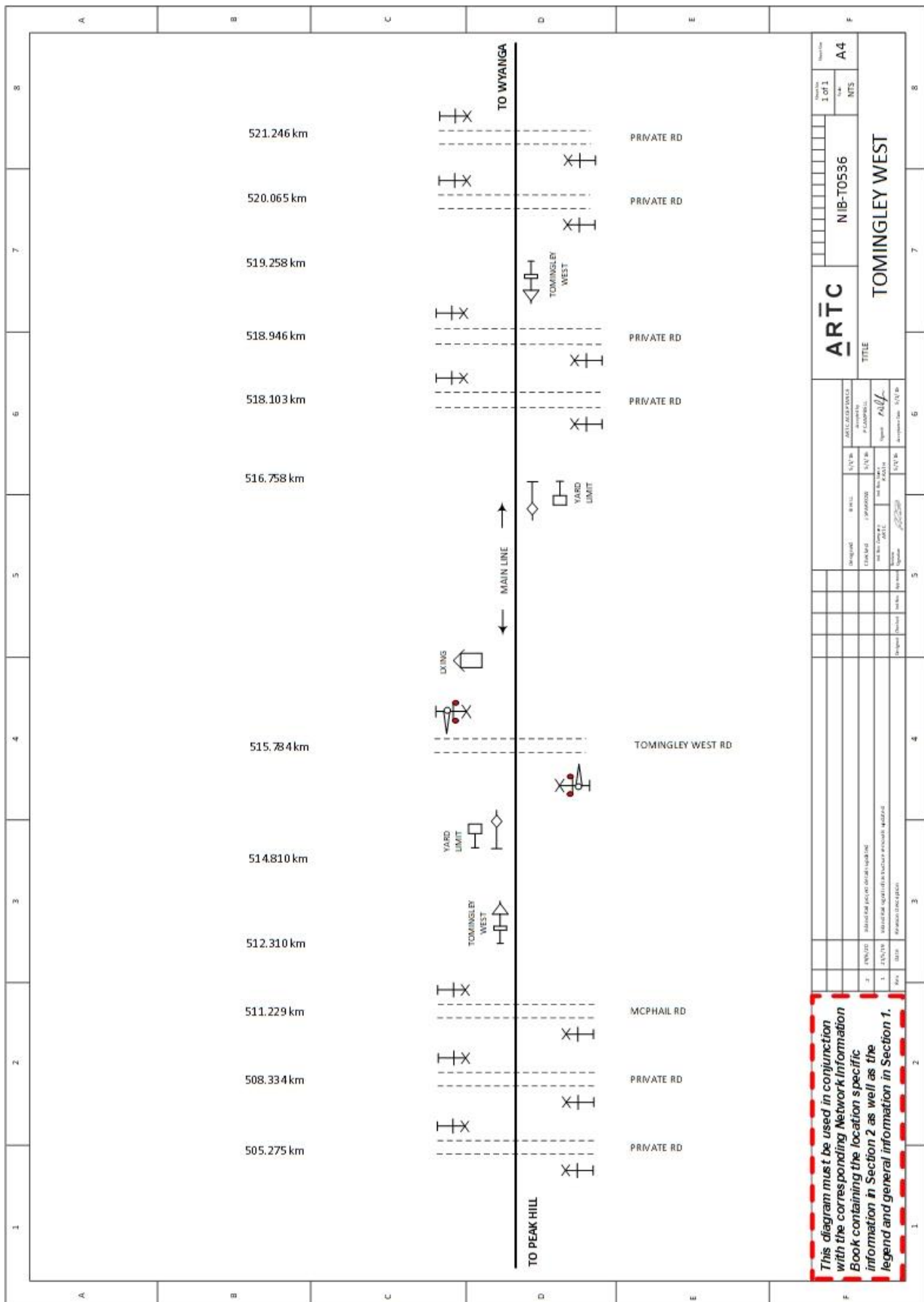
A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 is installed on the side of Tullamore Rd level crossing.

Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use.

The warning equipment is automatically controlled by Axle Counters for Up and Down rail traffic movements.

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## 2.9 Wyanga (WNA)

### General Arrangements

Wyanga is a Train Order location with a Maintenance siding that is clear of Train Order Territory

Siding length 384m

### Yard Limits

A YARD LIMIT sign is located at 527.415km to indicate the Wyanga Yard Limit in the Down direction.

A YARD LIMIT sign is located at 530.554km to indicate the Wyanga Yard Limit in the Up direction.

### Shunt Limit

A SHUNT LIMIT sign is provided at 530.054km to indicate the Wyanga Shunt Limit in the Down direction.

A SHUNT LIMIT sign is provided at 527.915km to indicate the Wyanga Shunt Limit in the Up direction.

### Frames

Frame B is located on the Up side of the main line adjacent to 1B points at 529.243km, provides access to the Maintenance siding and is unlocked by operator's key.

### Mechanical Point Indicator (MPI)

An MPI is located adjacent 1B points at 529.253km

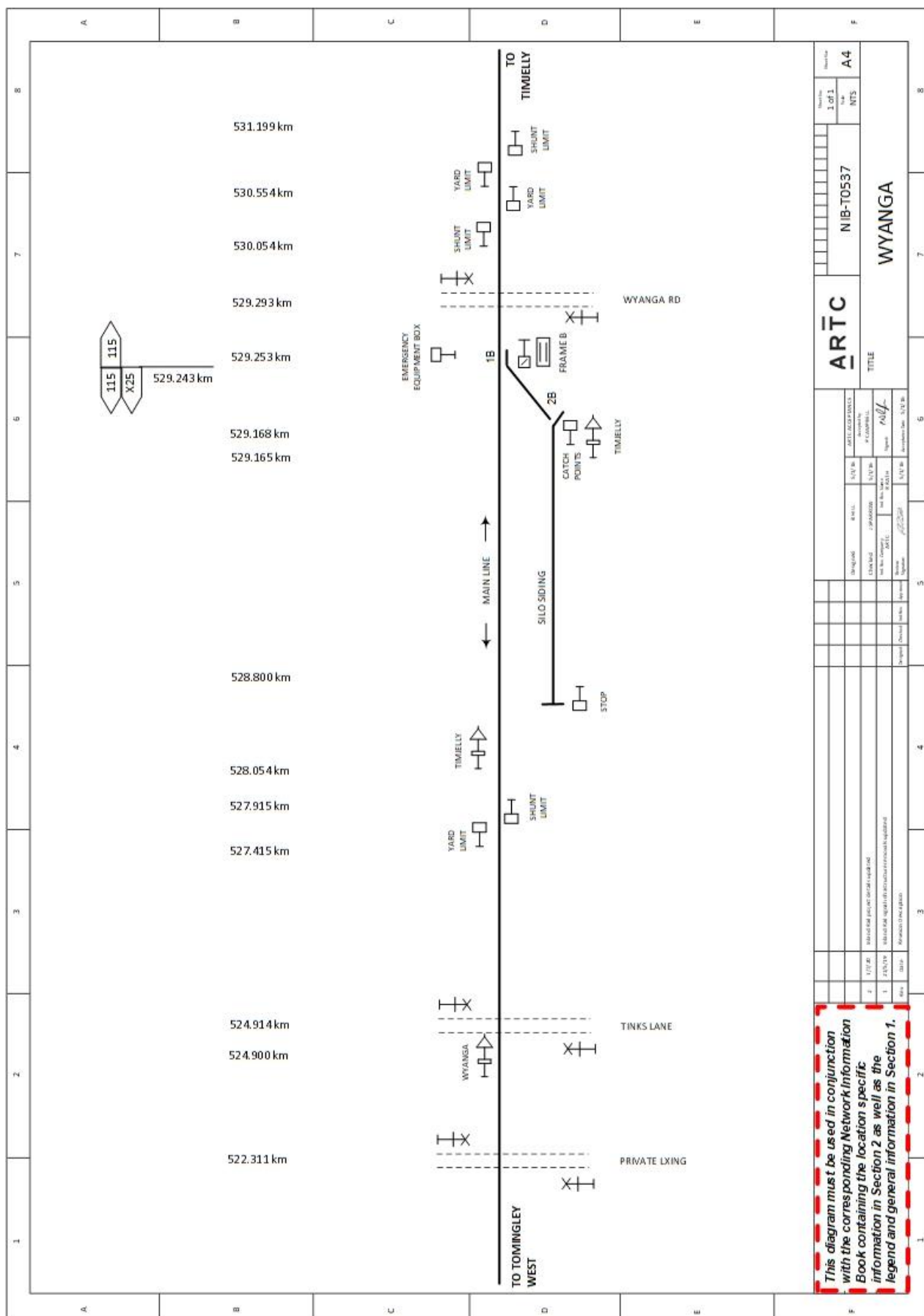
### Maintenance Siding

The Maintenance Siding is fitted with catch points (2B) and is interlocked with the operation of Frame B.

### Emergency Equipment Box

An emergency equipment box is provided on Up side of the main line. The box is secured by SL lock.

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## 2.10 Timjelly (TMJ)

### General Arrangements

Timjelly is a Train Order location with a crossing loop.

Crossing Loop length 1925m

### Main Line Indicators (MLI)

"A" MLI is located at 532.194km for Down direction rail traffic

"B" MLI is located at 534.516km for Up direction rail traffic

### Yard Limits

A YARD LIMIT sign is located at 530.554km to indicate the Timjelly Yard Limit in the Down direction.

A YARD LIMIT sign is located at 536.011km to indicate the Timjelly Yard Limit in the Up direction.

### Shunt Limits

A SHUNT LIMIT sign is provided at 531.199km to indicate the Timjelly Shunt Limit in the Down direction.

A SHUNT LIMIT sign is provided at 535.511km to indicate the Timjelly Shunt Limit in the Up direction.

### Points Machines

"A" Points are located at 532.199km, provide access to the Loop, are operated by push buttons and unlocked by Operators Key.

"B" Points are located at 534.511km, provide access to the Loop, are operated by push buttons and unlocked by Operators Key.

### Point Indicators

"AM" (main line) is located at 532.432km and "BM" (main line) is located at 534.357km

"AS" (siding) is located at 532.432km and "BS" (siding) is located at 534.357km

### Operation of Points and Main Line Indicators

Note: To operate a button depress it for 2 seconds

"A" and "B" MLI push button panels contain three push buttons - Main Clear, Loop Clear and Indicator Cancel.

Insert Operators Key, depress "Indicator Cancel" button, the points free indicator will flash until points become free after 2 minutes. When a steady points free indicator is illuminated

- For Main Line depress "Main Cancel" button
- For Loop depress "Loop Clear" button

Points will operate and indicator will clear

"AS" and "BS" push button panels contain two push buttons - Indicator Clear and Indicator Cancel.

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Insert Operators Key, depress "Indicator Cancel" button, the points free indicator will flash until points become free after 2 minutes. When a steady points free indicator is illuminated depress the "Indicator Clear" button, the points will operate and indicator will clear.

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position after rail traffic has occupied and then is clear of the point track circuit, the points will return to normal position, after a time delay of 45 seconds.

The power operated points are fitted with manual "hand throw" levers, the locking lever is inscribed "manual" and "power" and the operating lever is inscribed "normal" and "reverse".

To manually operate the points, the EOL key must first be obtained from the EOL box fitted to the outer wall of the respective interlocking location located near the points. The EOL key should be inserted into the EOL slot in the point machine and turned to release the lock lever.

The lock lever should then be moved from the "power" position to the "manual" position this will release the manual operation lever. The operating lever can then be moved from the "normal" to the "reverse" position or vice versa.

### Through Movements

The MLIs will normally display a pulsating white aspect and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

### Entry into the Loop

For movements into the loop, the train must be brought to a stand short of "A" or "B" MLI. Press the "Cancel" button to place the opposing MLIs to Red. Following the expiry of 2 minutes the points will become free to operate the siding. The Competent Worker must ensure that the "Points Free" light is displayed and then press the "Loop Clear" button. Once the points have completed their movement, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights allowing movement into the loop.

To cancel the movement into the loop, press "Indicator Cancel" button, which will result in the white angled lights being extinguished. The points will self-restore to normal once they become free. After the points have been normalised, with pressing of the "Main Clear" button the MLI will clear to pulsating white.

### Exit from the Loop

To exit the loop, first press the "Indicator Cancel" button provided in the push button panel near the Point Indicator. This will result in replacement of the Point Indicator to red and after a 2-minute time delay, will release the points. The points free indicator will flash. Press the "Indicator Clear" button provided in "BS" or "AS" pushbutton panel, once the points have moved and are detected, the Point Indicator will then display a white arrow allowing movement onto the Main line.

To cancel the movement out of the loop, press "Indicator Cancel", this will result in extinguishing of the White Arrow and the display of the red aspect on the Point Indicator. The points will be self-restored to normal once they become free. Press "Indicator Clear" at this instance to restore the main line indicator to pulsating white.



*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 Narwonah (NAH)

### General Arrangements

Narwonah is a Train Order location, incorporating Narwonah AWB siding.

Narwonah AWB siding is clear of Train Order Territory.

Narwonah and Narromine South are discreet Train Order Locations separated by back to back Yard Limit Signs. There is no section between these locations.

Narwonah AWB Siding length 423m

### Yard Limits

A YARD LIMIT sign is located at 545.547km to indicate the Narwonah yard limit in the Down direction.

A YARD LIMIT sign is located at 552.082km to indicate the Narwonah yard limit in the Up direction.

### Shunting Limits

A SHUNT LIMIT sign is provided at 551.465km to indicate the Narwonah shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 546.047km to indicate the Narwonah shunting limit in the Up direction.

### Ground Frames

Frame C is located at 550.134km on the Down side of the main line adjacent to the points and provides access to the siding. The frame is unlocked by an Operator's key.

Frame D is located at 550.662km on the Down side of the main line adjacent to the points and provides access to the siding. The frame is unlocked by an Operator's key.

### Catch Points

Catch Points are located on either end of the AWB siding and are interlocked with the operation of frames C and D.

### Tullamore Road Level Crossing 552.956km

Type F flashing lights, bells and manual operation switch are provided at the Tullamore Road level crossing at 552.956km.

A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 is installed on the side of Tullamore Rd level crossing.

Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use.

*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.*

*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.*

## 2.12 Narromine South (Agrigrain)

### General Arrangements

Narromine South is a Train Order Siding location and is the mainline loading site known as Agrigrain.

Hardstanding and loading area on the up side of the main line.

Narwonah, Narromine South and Narromine South-West are discreet Train Order Locations separated by back to back Yard Limit Signs.

There is no section between each location.

### Yard Limits

A YARD LIMIT sign is located at 552.082 km to indicate the Narromine South yard limit in the down direction. This is back-to-back with Narwonah.

A YARD LIMIT sign is located at 555.000km to indicate the Narromine South yard limit in the up direction. This is back-to-back with Narromine South-west.

---

**NOTE:** *Rail Traffic Crew travelling between Narromine South and any other location must be in possession of a Train Order.*

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### Shunting Limits

A SHUNT LIMIT sign is located at 552.757km to indicate the Narromine South yard limit in the up direction.

A SHUNT LIMIT sign is located at 554.500km to indicate the Narromine South yard limit in the down direction.

### Loading grain trains on the main line at Narromine South

A grain loading site is provided next to the main line near Tullamore Road level crossing to allow the loading of grain trains on the main line.

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**NOTE:** *Trains loading must have shunt access on a Proceed Authority or hold a Shunt Order.*

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### Notice sign

A notice sign inscribed "Loading trains stop. Push button to cancel main line indicator before passing this board", is provided on the Up side of the main line next to the level crossing warning sign.

#### Main line indicator

A main line indicator designated Y is provided on the Up side of the line on the Narromine side of Tullamore Road level crossing. The main line indicator is interlocked with the warning equipment at the level crossing and is used to control the warning equipment during main line loading operations.

The main line indicator is a two-light indicator and displays either pulsating white or steady red indications.

#### Main line indicator pushbutton units

Main line indicator pushbutton units are provided in boxes at the following locations:

## Goobang North to Dubbo West Locations and Sections Information

- on the post of the loading trains stop sign. This unit contains one pushbutton, labelled "Main line indicator cancel".
- on a post next to the main line indicator. This unit contains two pushbuttons, labelled "Main line indicator clear" and "Main line indicator cancel".

Operation of the "Main line indicator cancel" pushbutton will place the main line indicator at stop and cancel operation of the level crossing warning equipment.

Operation of the "Main line indicator clear" pushbutton commences operation of level crossing warning equipment and clears the main line indicator. The pushbutton must not be depressed until the train is ready to depart.

The main line indicator pushbutton units must be kept closed and secured with an SL lock when not in use.

**Tullamore Road Level Crossing**

Type F flashing lights and bells are provided at Tullamore Road level crossing at 552.956km.

The warning equipment is automatically controlled by track circuit for Up or Down trains on the main line, and manually controlled by the operation of main line indicator pushbuttons when trains are loading on the main line.

## Goobang North to Dubbo West Locations and Sections Information



## 2.13 Narromine South-West

### General Arrangements

Narromine South-West is a Train Order Interface location.

Narromine South and Narromine South-West are discreet Train Order Locations separated by back to back Yard Limit Signs.

Narromine South-West and Narromine are discreet locations separated by back to back Start / End Train Order Working signs.

There is no section between the locations.

### Begin and End Train Orders

An END TRAIN ORDER WORKING sign is located on Z signal at 497.790km (556.550km via Parkes) to indicate the end of Train Order Working in the down direction.

A BEGIN TRAIN ORDER WORKING sign is located at 497.790km (556.550km via Parkes) to indicate the start of Train Order Working in the up direction.

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*NOTE: Rail Traffic Crew travelling between Narromine and Narromine South-West must be in possession of a Train Order. Trains required to shunt between Narromine and Narromine South-West must have a Proceed Authority with shunt access.*

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### Yard Limits

A YARD LIMIT sign is located at 555.000km to indicate the Narromine South-West yard limit in the down direction.

### Shunting Limits

A SHUNT LIMIT sign is located at 555.500km to indicate the Narromine South-West shunt limit in the up direction.

*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 Narromine (NMN)**

### **2.14.1 General Arrangements**

Narromine is an unattended Rail Vehicle Detection signalled location clear of Train Order territory. Permission must be obtained from the Network Controller NCCN before entering or departing the yard.

Train Order Interface locations Narromine South-West and Narromine West (CRN) are the begin / end of adjacent Train Order Working sections.

Narromine and the adjacent Train Order Interface locations are separated by back to back Yard Limit Signs and Begin/End Train Order Working signs.

There is no section between each location.

Loop length: 619m

Refer safety interface agreement IA3000.04 for Narromine West (CRN) and IA1410 for Siding 2.

#### **TOA & LPA Permissive Yard Limits**

##### **Safeworking Arrangements**

Where the location of a proposed Track Occupancy (TOA) for a fixed worksite or a track vehicle movement or a Local Possession Authority (LPA) includes or extends into an Unattended Location where Permissive Yard Limits exist, the section either side of the Unattended Location must also be included within the limits of the TOA or LPA.

This requirement is to ensure that rail cannot approach the Permissive Yard Limit of an Unattended Location and will apply where signals exist to define the Yard Limit of a Location.

##### **Exceptions**

This requirement will not apply to a worksite within an unattended location where the points can be secured to prevent access to the portion of track within the TOA or LPA limits.

Where a worksite is located within or a track vehicle journey extends into an Unattended Junction Location where one or both branch lines are terminal lines and the Network Controller confirms that there is no rail traffic on those lines it will not be necessary to obtain a TOA or LPA for the adjacent sections on the terminal line or lines.

#### **Operation of Points and Signals**

The signals controlling the entrance to Narromine with the exception of signal Y up home main signal are automatically controlled by track circuits. Provided that a train is not closely approaching the interlocking from the opposite end and the points are correctly set, the signals with the exception of No Y signal will automatically clear to allow the train to enter the interlocking.

The power-operated points at the Minore end of the loop are operated by pushbutton control units and the points at Trangie end are operated from frame A.

The power operated points are self-normalising motor points and will automatically return to the normal position after the train has passed through the points.

Frame A also controls the points for the branch line to Parkes and releases keys for the operation of the various ground frames.

## Goobang North to Dubbo West Locations and Sections Information

Down Outer Home signal No. U, Down home signal No. X, and Up home branch signal No. Z all clear automatically for the main line on the approach of a train, provided that the points are correctly set at the Trangie end.

Up home main signal No. Y is cleared using the clear button located in the traffic hut at Narromine. This signal must not be cleared or passed at stop without authority from the Network Controller in charge of Narromine yard.

**Operation of Points at the Trangie end of the Loop line and the Parkes Branch line**

The points at the Trangie end of the Loop line and the Parkes Branch line are operated from frame A.

Frame A is released by the closing key and electrical release on the closing lever. The closing key is located in an Annette lock in the traffic hut which is secured with an SL lock.

Removal of the closing key will restore all signals at Narromine to stop and will prevent them from clearing until the key is restored.

Nos. 8 (Main to Branch) and 11 (Main to Loop) points worked from frame A are controlled by track circuit and cannot be moved unless the track(s) controlling the points is unoccupied.

A diagram is provided at frame A to give an indication of approaching trains when shunting is taking place.

**Operation of Power-operated Points in an Emergency**

No. A points located at the Minore end of the Loop line are electrically power-operated.

If these points fail to operate correctly, the Competent Worker 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.

**Ground Frames****Frame C**

Frame C is located on the Up side of the Loop line adjacent to the points and provides access to the Goods siding and the Grain siding at the eastern end.

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

Releasing switch C is electrically released by a pushbutton unit located next to the releasing switch.

The pushbutton unit contains two buttons, a red button inscribed "Cancel" and a green button inscribed "Shunt siding". A notice is displayed inside the pushbutton unit, which states:

You must wait two minutes for releasing switch to operate.

**Frame D**

Frame D is located on the Down side of the main line adjacent to the points and provides access to No. 1 Down siding.

Frame D is unlocked by a key from No. 14 lever in frame A.

**Frame B**

Frame B is located on the Up side of the Loop line adjacent to the points and provides access to the Goods siding at the western end.

Frame B is unlocked by a key from No. 12 lever in frame A.

**Frame G**

Frame G is located on the Down side of the Parkes Branch line adjacent to the points and provides access to the Wheat siding ("Mushroom siding").

Frame G is unlocked by a key from No. 13 lever in frame A.

**2.14.2 Shunting Arrangements**

For a train requiring to cross Dandaloo Street level crossing to shunt the Wheat siding, the Competent Worker must unlock frame A and obtain the key for frame G points.

When signal No. W cannot be cleared for train movements it will be necessary to operate the level crossing warning equipment by using the operator's pushbutton units and then handsignalling the train past signal No. W.

Similarly, movements returning from the Wheat siding will not operate the level crossing and it will be necessary to operate the operator's pushbutton units and handsignal the train over the level crossing.

**Shunting Arrangements at the Dubbo end of the Yard**

The Competent Worker must press either the "Main" or the "Loop" pushbutton in the pushbutton unit labelled "For shunting", which is located adjacent to No. A points. This will cause No. A points to operate to the required position for the movement and the warning equipment at Manildra Street to operate.

When signal No. AM or No. AL clears, the Driver must proceed past the signal and bring the train to a stand on the Dubbo side of shunting signal No. V.

To return to the yard from signal No. V, the Competent Worker must press either the "Shunt main" or the "Shunt loop" pushbutton to operate No. A points to the required position, operate the level crossing equipment, and then clear signal No. V.

To gain access to the Goods or the Grain siding, the Competent Worker must obtain the key from releasing switch C.

The "Shunt siding" button must be pressed for one second and then, 120 seconds later, provided that No. 11 points are in the normal position and signals Nos. X and V are at stop, the white "Free" light will be displayed and the key can be removed.

The removal of the key will prevent the operation of signal No. X(S), and so it is important that frame C and releasing switch C are returned to normal as soon as possible after shunting is completed.

If the "Shunt siding" button is depressed and the key is not removed for any reason, the cancel button must be depressed for one second to prevent unnecessary delays.

Trains requiring to shunt beyond X signal at Narromine must not proceed beyond B signal.

### 2.14.3 Signal Pushbutton Units

Signal pushbuttons are located in the traffic hut near Up 2nd home/starting signal No. AM, at Down home signal No. X, and at shunting signal No. V on the Dubbo side of Manildra Street level crossing.

The signal pushbutton units located at signals Nos. AM, V and X are in a steel cupboard secured by an SL lock near the signals.

If, after operation of any of the pushbuttons, it is decided not to proceed with the movement, the "Cancel" pushbutton must be depressed. This will place the signal at stop and cancel operation of the level crossing warning equipment.

As operation of the signal pushbuttons commences operation of the level crossing warning equipment, they should not be depressed until the train movement is ready to commence.

If an Up train on the main line or the branch line approaches Narromine and signal No. Y or signal No. Z does not clear, the Competent Worker will be required to walk forward and check the position of No. 8 points.

If they are set for the other route, frame A must be unlocked, the points correctly set and then frame A restored to normal, whereupon the signal should clear to permit entry of the train.

Signals Nos. X, Y and Z and No. A points can only be operated when frame A is switched out. However, signal No. W can be operated independently of frame A.

#### Traffic Hut Pushbutton Units

The pushbutton unit in the traffic hut contains a pushbutton inscribed "W signal push to clear", a red button inscribed "W signal cancel" and a white control light for signal No. W.

The pushbutton unit for AM Signal is provided with 2 Pushbuttons. One pushbutton inscribed "FOR DEPARTING TRAINS WITH NO TRAIN ORDER" when operated (and there is no train occupying the line ahead) will allow AM signal to be cleared for a movement to B Signal. AM Signal will Display a caution Indication, B Signal will display a Stop Indication. A repeater for signal No. AM is also provided in the unit.

Another pushbutton inscribed "FOR DEPARTING TRAINS WITH TRAIN ORDER" when operated (and there is no train occupying the line ahead) will allow AM signal to be cleared for a movement toward B Signal. AM Signal will Display a clear Indication and B Signal will display a Proceed Indication.

A pushbutton unit to clear No. Y signal is located in the traffic hut at Narromine and contains a red button inscribed "Y signal cancel" and a green button inscribed "Y signal clear". Y signal must not be cleared to allow a train to enter Narromine yard without authority from the Network Controller in charge of Narromine yard.

A prohibitive sign is provided above the push button unit for Y signal in the Narromine traffic hut, inscribed THIS SIGNAL MUST NOT BE CLEARED WITHOUT AUTHORITY OF THE NETWORK CONTROLLER.

#### Signal No. AM Pushbutton Units

There are three signal pushbutton units near signal No. AM labelled "For shunting", "AM/AL signals (Up home/starters)" and "For Departing trains with Train Order". The pushbutton unit labelled "For shunting" contains two green buttons inscribed "Main" and "Loop" respectively.

## Goobang North to Dubbo West Locations and Sections Information

The pushbutton unit labelled "AM/AL signals (Up home/starters)" contains:

- Two pushbuttons inscribed "FOR DEPARTING TRAINS WITH NO TRAIN ORDER" inscribed "AM (main) signal" and "AL (loop) signal" respectively
- Two pushbuttons inscribed "FOR DEPARTING TRAINS WITH TRAIN ORDER" inscribed "AM (main) signal" and "AL (loop) signal" respectively
- a red button inscribed "Cancel"
- and a white light inscribed "A points free".

**Signal No. X Pushbutton Unit**

The signal pushbutton unit near signal No. X is labelled "X signal". The pushbutton unit contains two green buttons inscribed "Down Main" and "Down Loop" respectively, a red button inscribed "Cancel", and a white light inscribed "A points free".

**Signal No. V Pushbutton Unit**

The signal pushbutton unit near signal No. V shunting signal contains two green buttons inscribed "Shunt main" and "Shunt loop" respectively, a red button inscribed "Shunt cancel", and a white light inscribed "A points free".

**2.14.4 Working of Through Trains****Down Rail Traffic**

Down Outer Home signal No. U will automatically clear on the approach of a train, providing no rail traffic is occupying the line ahead.

Down Home signal No. X will automatically clear on the approach of a train, providing that all points are correctly set, Frame A is locked, no train is approaching from the opposite end and the tracks are unoccupied.

The driver must bring the train to a stand at Frame A.

The Competent Worker must ensure that No. 8 points (for the branch line) are lying in the correct position for the required movement.

If not, the closing key must be obtained from the operations hut and No. 9 lever unlocked and No. 8 points set, as required. No. 9 lever must then be reversed and locked and the key returned.

When ready to depart, the pushbutton for No. W signal must be operated. This will cause the Dandaloo Street level crossing warning equipment to operate and the signal to clear. The train must be standing at the level crossing to activate the warning equipment.

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**NOTE:** Rail Traffic Crew that require to proceed towards Cobar must obtain the relevant Train Order from the Country Regional Network NCO. Then contact the ARTC Network Controller for permission to depart the yard and then depress the signal control button in the traffic hut to clear W signal and activate the level crossing warning equipment.

**NOTE:** It may be necessary for the crew to restore No. 8 points after the train has passed through them. This depends on which is the next train to arrive and this will be advised by the Network Controller. Alternatively, the next train to arrive may be required to set the points, as instructed.

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## Goobang North to Dubbo West Locations and Sections Information

**Up Rail Traffic**

Up home signal No. Z will automatically clear on the approach of a train, providing that all points are correctly set, Frame A is locked, no train is approaching from the opposite end and the tracks are unoccupied.

Trains approaching No. Y signal from Trangie must bring their train to a stand at No. Y signal which will display a STOP indication. The Competent Worker must walk into the Narromine traffic hut and after receiving authority from the Network Controller in charge of Narromine clear Y signal using the push button unit in the traffic hut to allow the train to enter Narromine yard.

An arriving train needing to shunt Narromine yard, or a train less than 740 metres long should not use the pushbuttons for AM signal provided in the traffic hut. When issued a train order to depart towards Dubbo, this rail traffic can use the pushbuttons near AM signal to clear the signals.

A train longer than 740 metres that will be departing Narromine should operate the pushbutton for AM signal inscribed “FOR DEPARTING TRAINS WITH NO TRAIN ORDER” so that the train can arrive in clear at Narromine, proceeding to B signal.

A train that will be departing and already holds a Narromine-departure Train Order should operate the pushbutton for AM signal inscribed “FOR DEPARTING TRAINS WITH TRAIN ORDER” so that the train can depart Narromine with B signal displaying a proceed indication.

**Down Train Entering the Loop line**

Down home signal No. X will automatically clear for the main line on the approach of the train, providing that all points are correctly set, frame A is locked, no train is approaching from the opposite end, and the tracks are unoccupied.

The Driver will bring the train to a stand at signal No. X and the Competent Worker must then press the “Cancel” pushbutton.

The signal will then return to stop and the level crossing warning equipment at Manildra Street will cease to operate after a period of 2 minutes. The “Down Loop” pushbutton must then be pressed and this will cause No. A points to reverse, the level crossing warning equipment to operate and, 15 seconds later, signal No. X(S) to the Loop line will clear.

The train will then proceed into the Loop line and, when the rear of the train has passed signal No. AL, the points will automatically return to normal 30 seconds later for the next movement.

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*NOTE: If an Up train is standing on the main line between Up home/starting signal No. AM and Up home signal No. Y, No. A points will be prevented from operating to the reverse position for a period of four minutes.*

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**Up Train Entering the Loop line**

On the approach of a train from Peak Hill, Up home signal Z will clear, providing that all points are correctly set, frame A is locked, no train is approaching from the opposite end, and the tracks are unoccupied.

On the approach of a train from Trangie, Up home signal Y will not clear. The Competent Worker must walk into the Narromine traffic hut and after receiving authority from the Network Controller in charge of Narromine, clear Y signal using the push button unit in the traffic hut to allow the train to enter Narromine yard.

The Driver of trains arriving from either Peak Hill or Trangie must bring the train to a stand at the traffic hut clear of the Loop points. The Competent worker must then obtain the closing key and unlock No. 9 lever in frame A, and then reverse No. 11 points.

## Goobang North to Dubbo West Locations and Sections Information

The train may then be hand signalled into the Loop line and, when clear of No. 11 points, these points must be restored to normal and No. 9 lever locked.

**Up Trains Departing the Loop line or Main line**

When the train is ready to depart, the pushbutton at Signal AM must be used. The pushbuttons inscribed "FOR DEPARTING TRAINS WITH TRAIN ORDER" for either the "AM (main) signal" button to depart from the main line or the "AL (loop) signal" button to depart from the Loop line must be pressed for one second. When the signal clears, the green "AM" repeater light will be displayed and the train may depart.

During this operation, the train will be standing across Dandaloo Street level crossing and the above procedure must be carried out without delay.

**Down Train Departing the Loop line**

Provided that no trains are approaching, the closing key can be used to unlock frame A and Nos. 8 and 11 points can be set, as required.

The pushbutton at signal No. W must be used to clear the signal for the required route.

**2.14.5 Signage**

"DO NOT PROCEED BEYOND THIS SIGNAL UNLESS AUTHORISED BY THE NETWORK CONTROLLER" signage is provided on signals U, Y and Z. Rail Traffic Crews must obtain the Network Controllers authority prior to entering the Narromine Yard Limits.

**2.14.6 Level Crossings****Manildra Street Level Crossing**

Type F flashing lights, audible warning devices and manual operation switch are provided at the Manildra Street level crossing at 496.784km.

A pedestrian level crossing with footpath and approach maze (passive control) are provided at Manildra Street.

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

If rail traffic closely approaches the Down Home signal No. X or Up 2nd Home/Starting signal No. AM or No. AL 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.



## Goobang North to Dubbo West Locations and Sections Information

## Manual Operation Switch for Manildra Street level crossing

A manual operation switch for use by Competent Workers in accordance with the instructions detailed in ARTC Network Rule ANGE 218 is installed on the side of Manildra Street level crossing.

Cancellation of the level crossing warning equipment by use of the manual operation switch is required as the warning indications **will not be cancelled automatically** when the rear of the train has cleared the level crossing.

The manual operation switch **MUST** be kept closed and secured by an SL lock when not in use.

**Dandaloo Street Level Crossing**

Type F flashing lights, bells, half boom barriers and pedestrian "Don't Walk" lights and sirens are provided at Dandaloo Street level crossing at 497.629km.

The Up direction (Sydney side) crossing bell will be switched off when the half boom barriers are horizontal.

The warning equipment is automatically controlled by track circuit for Down and Up rail traffic, subject to the clearance of the signals on each side of the crossing, and manually controlled by operator's pushbutton units for rail traffic shunting over the level crossing.

If rail traffic closely approaches Up Home signal No. Y or No. Z or Down 2nd Home/Starting signal No. W 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 until the boom barriers are horizontal.

## Operator's Pushbutton Units for the Level Crossing

Two operator's pushbutton units are provided in boxes inscribed "Shunter's switch", which are attached to posts located on each side of the level crossing.

When a shunting movement to or from the Wheat siding will be required to obstruct the level crossing, the Competent Worker must unlock the operator's pushbutton unit and press the "Start" pushbutton for one second to cause the warning equipment to operate, before hand signalling the rail traffic over the crossing.

The warning indications will be cancelled automatically when the rear of the shunting movement has cleared the level crossing.

If the movement is not proceeded with, the warning indications must be cancelled by pressing the "Cancel" pushbutton in either shunter's switch for one second.

The operator's pushbutton units must be kept closed and secured by an SL lock when not in use.

A notice sign inscribed "Shunting train stop, press button for level crossing lights", is provided on the Down side of the branch line, facing to Up rail traffic, next to the operator's pushbutton unit.



## **2.14.7 Country Regional Network Interface Requirements**

### **Work on Track**

The following instructions will apply if work on track will be conducted which:

- extends into the UGLRL controlled area, or
- requires protection to be provided by the UGLRL Network Control Officer.

Where any work on track activity within the ARTC Network requires protection from the adjacent CRN Network, the UGLRL Network Control Officer, ARTC Network Controller and the Protection Officer must establish a conference call to agree upon:

- affected rail traffic movements
- location of work
- required protection arrangements
- duration of work.

### **Local Possession Authorities (LPA)**

The limits of an LPA must not extend beyond the Operational Interface at 497.792 km.

#### **Back-to-Back LPAs**

Where back-to-back LPAs are implemented, the following instructions will apply:

- Worksites and rail traffic that need to move from CRN territory to ARTC territory are authorised and supervised by the ARTC Possession Protection Officer (PPO).
- Worksites and rail traffic that need to move from ARTC territory to CRN territory are authorised and supervised by the UGLRL PPO.

Where work is being undertaken at or over the interface boundary the following will apply:

- The UGLRL PPO and the ARTC PPO must confer and come to a clear understanding of the worksite protection to be established over the CRN and ARTC interface boundary.
- When the work at or over the interface boundary is completed, the UGLRL PPO and ARTC PPO must ensure that possession protection is removed.

### **UGLRL only LPA**

Where a UGLRL only LPA is to be obtained, the UGLRL Possession Protection Officer must request the ARTC Network Controller to protect the possession limit by applying blocking facilities to exclude rail traffic entry to the CRN for the duration of the possession.

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work.

### **ARTC only LPA**

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work.

## Goobang North to Dubbo West Locations and Sections Information

**Track Occupancy Authority (TOA)**

The UGLRL Network Control Officer is responsible for implementing a TOA when a worksite is established on the CRN Network up to the Operational Interface at 497.792 km.

The ARTC Network Controller is responsible for implementing a TOA when a worksite is established on the ARTC Network up to the Operational Interface at 497.792 km.

When a TOA worksite extends beyond 497.792 km or the worksite is located within 500m of 497.792 km, separate TOA's must be issued by the UGLRL Network Control Officer and the ARTC Network Controller.

**Track Work Authorities (TWA)**

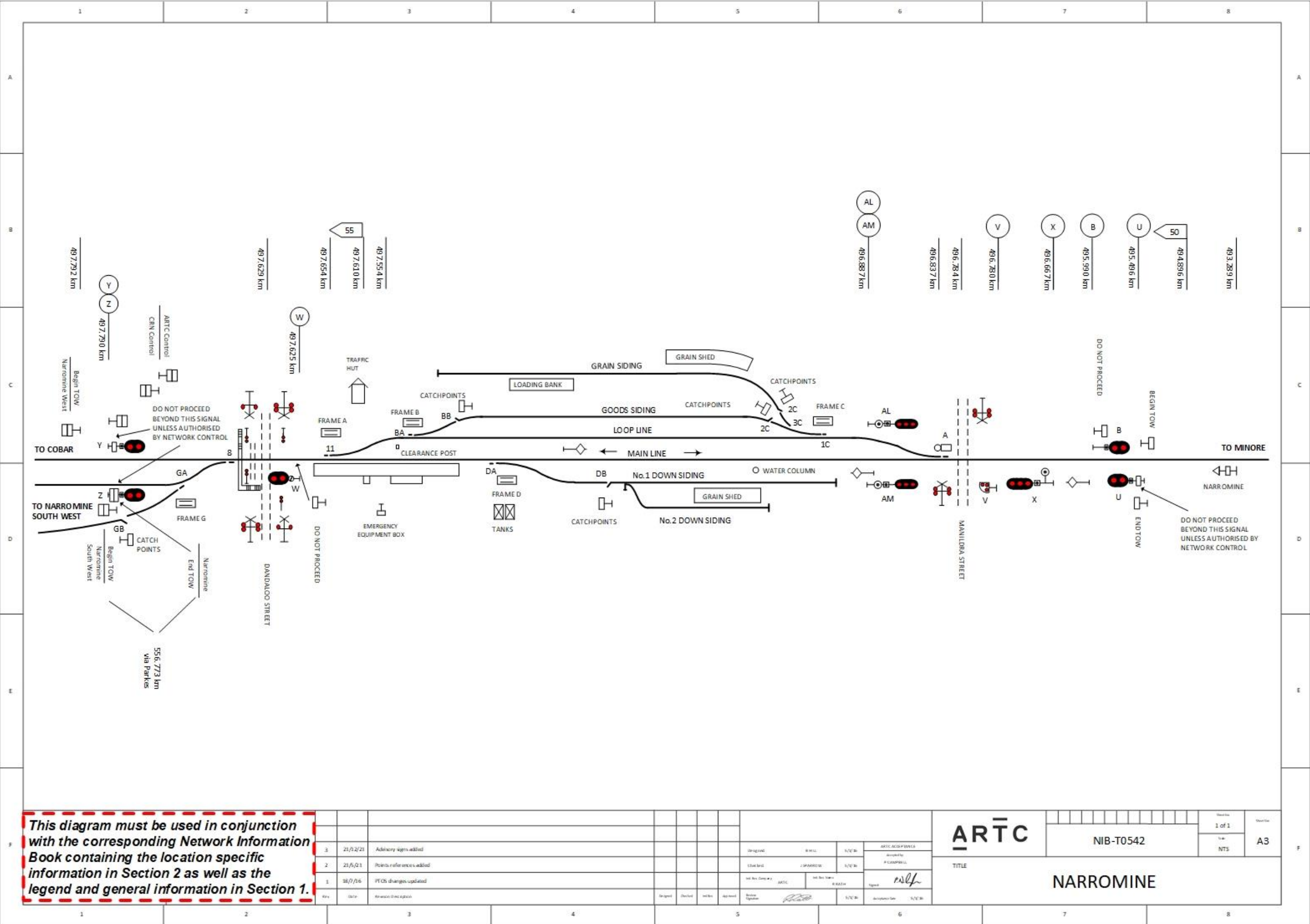
The ARTC Network Controller is responsible for implementing a TWA when a worksite is established on the ARTC Network up to the Operational Interface at 497.792 km.

The UGLRL Network Control Officer is responsible for implementing a TWA when a worksite is established on the CRN Network up to the Operational Interface at 497.792 km.

TWAs must not extend beyond the operational interface at 497.792 km.

**Route Control Blocking (RCB)**

The use of RCB is not permitted in the ARTC Network.



## **2.15 Minore (MOR)**

### **General Arrangements**

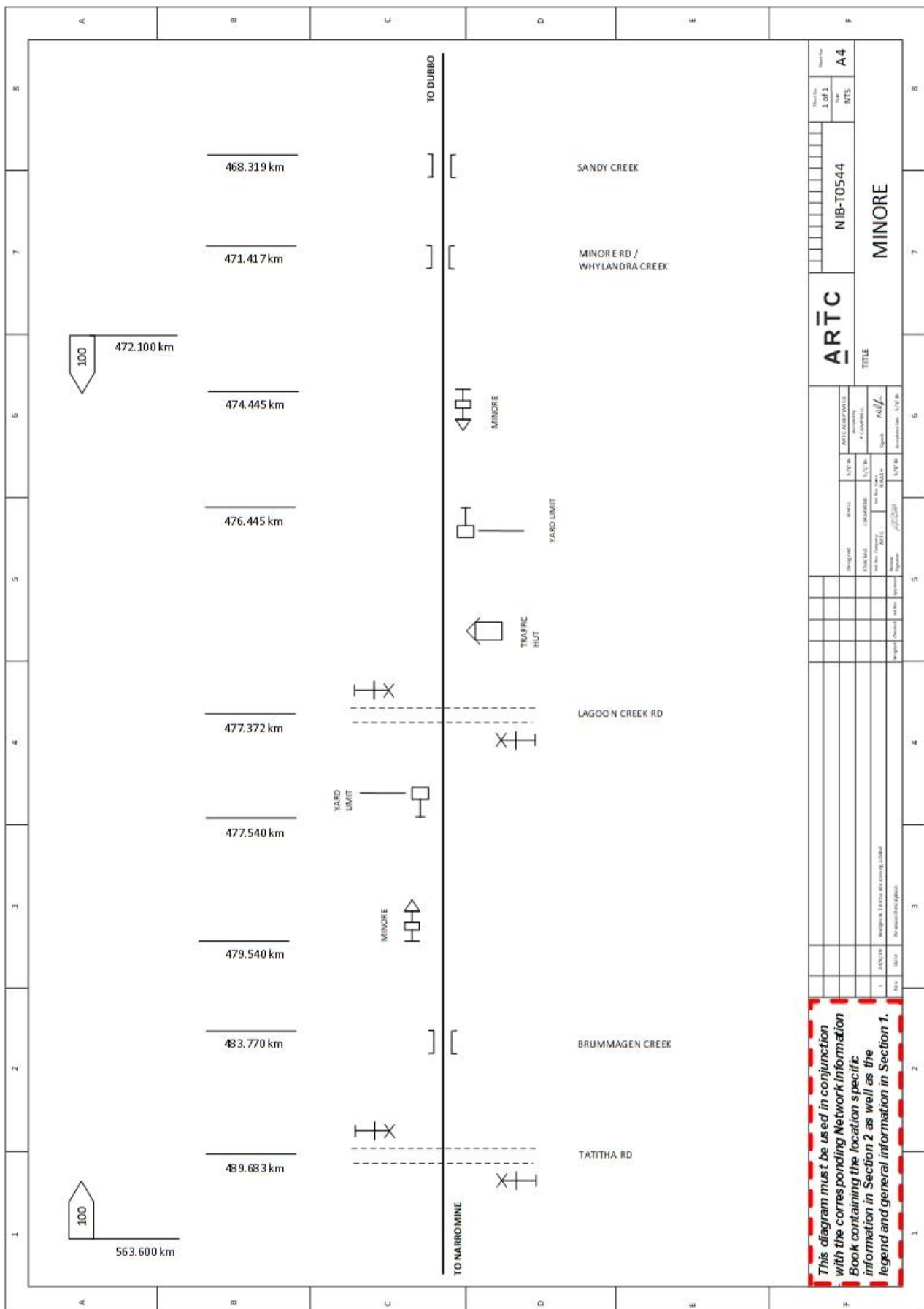
Minore is a follow-on location not provided with crossing and passing facilities in Train Order Working.

### **Yard Limits**

A YARD LIMIT sign is located at 476.445km to indicate the Minore yard limit in the down direction.

A YARD LIMIT sign is located at 477.540km to indicate the Minore yard limit in the up direction.

## Goobang North to Dubbo West Locations and Sections Information



## 2.16 Dubbo West

### General Arrangements

Dubbo West is a Train Order Interface location

Dubbo and Dubbo West are discreet locations separated by back to back Start / End Train Order Working Signs.

There is no section between the locations.

### Begin and End Train Orders

An END TRAIN ORDER WORKING sign is located at 462.655km to indicate the end of Train Order Working in the up direction.

A BEGIN TRAIN ORDER WORKING sign is located at 462.655km to indicate the start of Train Order Working in the down direction.

### Yard Limits

A YARD LIMIT sign is located at 465.105km to indicate the Dubbo West yard limit in the up direction.

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**NOTE:** *Rail Traffic Crews travelling between Dubbo and Dubbo West must be in possession of a Train Order. Trains required to shunt between Dubbo and Dubbo West must have a Proceed Authority with shunt access.*

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### Shunting Limits

A SHUNT LIMIT sign is located at 463.550km to indicate the Dubbo West shunt limit in the down direction.

### Mitchell Highway (Victoria Street) Level Crossing

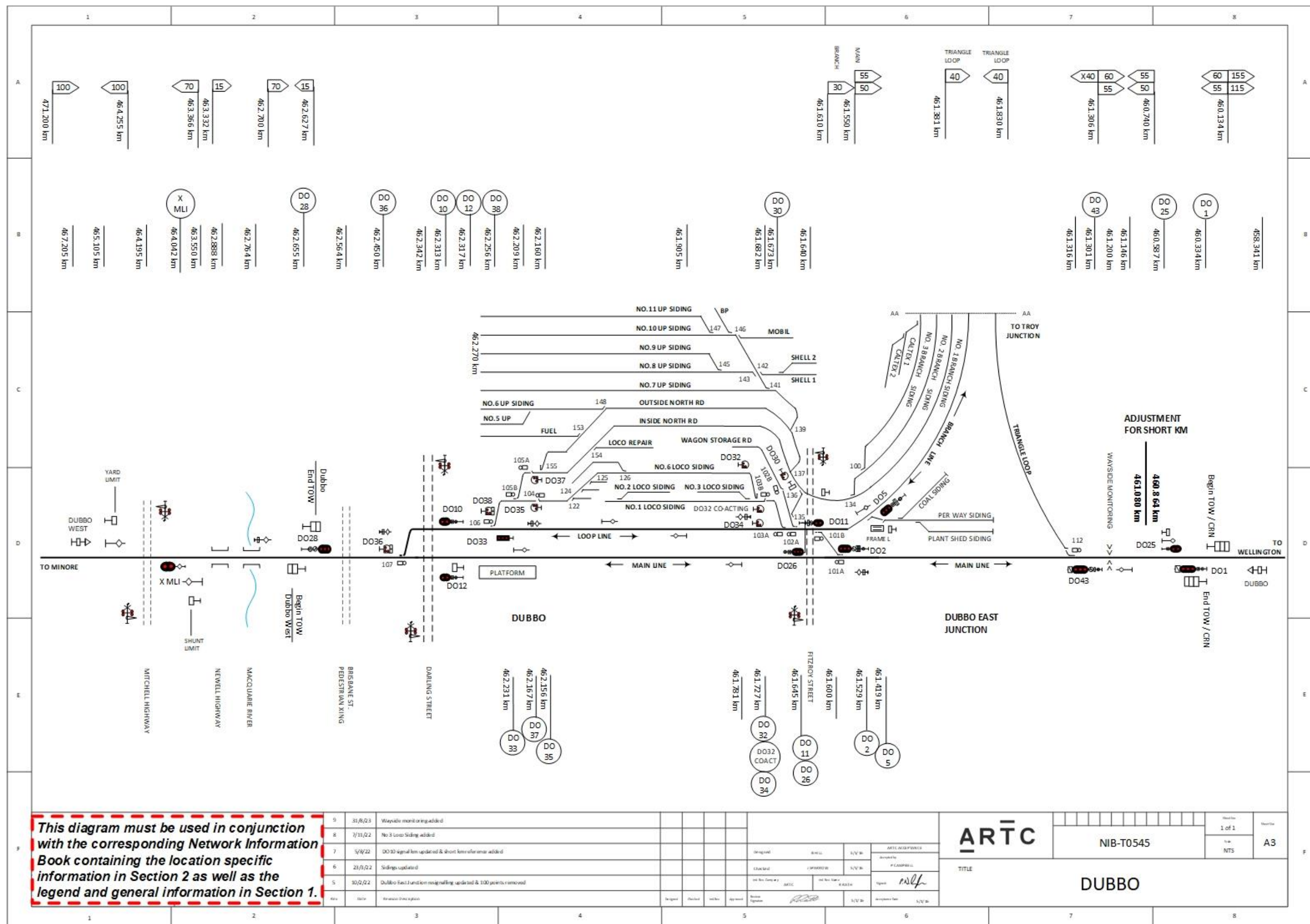
Type F flashing lights, bells and half boom barriers are provided at Mitchell Highway level crossing at 464.195km. The warning equipment is automatically controlled by track circuit for Up and Down directional rail traffic on the main line.

### Main Line Indicator

A Main Line Indicator (MLI) designated X facing Down directional rail traffic and is located on the Down side of the line on the Dubbo side of Mitchell Highway level crossing. The MLI is interlocked with the warning equipment at the level crossing.

The MLI is a two-light indicator and displays either pulsating white or steady red indications.





### **3 Turravan to North Star Locations and Sections Information**

#### **3.1 Turravan (exclusive)**

Train control north of Turravan is by Train Order Working.

Train control south of and inclusive of Turravan is by Rail Vehicle Detection controlled from Network Control Centre North.

Begin Train Order Working and End Train Order Working signs are located at TN 4 home signal (548.694km).



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## 3.2 Narrabri Junction (NBJ)

### 3.2.1 General Arrangements

Narrabri Junction is a Train Order Siding Location.

The junction consists of the Main Line, South Triangle Loop, North Triangle Loop and the wheat sub-terminal sidings. The South and North Triangle loops beyond the “End Train Order Working” Sign and the wheat sidings are outside of Train Order Territory.

Country Rail Network (CRN) Yard working is in operation beyond the “End Train Order Working” signs on the South and North Triangle loops. Trains and track vehicles must not depart the mainline into Narrabri West without authority from CRN North-West Control.

Refer to safety interface agreement IA3000.13

Narrabri Junction and Narrabri are discreet Train Order Locations separated by back to back Yard Limit signs.

There is no section between each location.

#### **Yard Limits**

A YARD LIMIT sign is located at 563.226km to indicate the Narrabri Junction yard limit in the down direction.

A YARD LIMIT sign is located at 567.160km to indicate the Narrabri Junction yard limit in the up direction.

#### **Shunting Limits**

A SHUNT LIMIT sign is provided at 566.261km to indicate the Narrabri Junction shunting limit in the down direction.

A SHUNT LIMIT sign is provided at 563.726km to indicate the Narrabri Junction shunting limit in the up direction

#### **Operation of Points**

All interlocked points at Narrabri Junction are operated and controlled from ground frames that are released by Operator's Key.

#### **Ground Frames**

##### **Frame D**

Frame D is located on the Down side of the main line adjacent to the points and provides access to the South Triangle loop.

Frame D is unlocked by a key from the bottom lock on Duplex lock D, which is mounted on a post adjacent to frame D. The top lock of Duplex lock D is unlocked by Operator's key.

##### **Frame A**

Frame A is located on the Down side of the main line adjacent to the points and provides access to the Wheat sidings and the North Triangle loop.

Frame A is unlocked by a key from the bottom lock on Duplex lock A, which is mounted on a post adjacent to frame A. The top lock of Duplex lock A is unlocked by Operator's key.

**Yard Working Notice Boards**

Notice boards, inscribed "Yard working STOP" on both sides, are provided on the Down side of the North triangle loop next to the catchpoints for frame A.

**Old Turravan Road Level Crossing**

Type F flashing lights and bells are provided at Old Turravan Road level crossing at 564.940km.

The warning equipment is activated via axle counter train detection equipment for Down and Up direction rail traffic on the main line and manually controlled by duplex locks.

**Main Line Indicators**

Main Line Indicators (MLIs) are located on the Sydney ("X" MLI) and the country ("Y" MLI) approaches to the level crossing. During normal operation both "X" MLI and "Y" MLI will display Yellow indications to approaching trains. A train approaching in one direction will place the MLI for the opposite direction at Stop.

To clear the MLI for movements through the Old Turravan Road level crossing after shunting operations are completed, the set button in the "MLI Set / Cancel pushbutton box" located near the MLI, needs to be pressed and held for one second. This will activate the level crossing warning equipment and after 15 seconds cause the MLI to clear.

**Duplex Locks**

Duplex locks D and A enable the warning equipment at the Old Turravan Road level crossing to be cancelled for trains shunting the South Triangle loop, the North Triangle loop, and the wheat siding.

The Duplex Lock for each ground frame holds the Annett key used to release the frame captive until released by an Operator's key. This will place the MLI to stop and after 120 seconds cancel the operation of the level crossing warning equipment.

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*Warning: To avoid delays to road traffic, if practical, the duplex lock should activate at least 120 seconds prior to the arrival of the shunting train".*

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**Shunting Narrabri Junction from Narrabri West Yard**

It will be permissible for a train to shunt between Narrabri West yard and Narrabri Junction on the authority of a shunt order for Narrabri Junction.

Authority must be obtained from the CRN Network Controller for any movement to / from Narrabri West yard.

### 3.2.2 Country Regional Network Interface Requirements

#### Work on Track

The following instructions will apply if work on track will be conducted which:

- extends into the UGLRL controlled area, or
- requires protection to be provided by the UGLRL Network Control Officer.

Where any work on track activity within the ARTC Network requires protection from the adjacent CRN Network, the UGLRL Network Control Officer, ARTC Network Controller and the Protection Officer must establish a conference call to agree upon:

- affected rail traffic movements
- location of work
- required protection arrangements
- duration of work.

#### Local Possession Authorities (LPA)

The limits of an LPA must not extend beyond the Operational Interfaces.

#### Back-to-Back LPAs

Where back-to-back LPAs are implemented, the following instructions will apply:

- Worksites and rail traffic that need to move from CRN territory to ARTC territory are authorised and supervised by the ARTC Possession Protection Officer (PPO).
- Worksites and rail traffic that need to move from ARTC territory to CRN territory are authorised and supervised by the UGLRL PPO.

Where work is being undertaken at or over the interface boundary the following will apply:

- The UGLRL PPO and the ARTC PPO must confer and come to a clear understanding of the worksite protection to be established over the CRN and ARTC interface boundary.
- When the work at or over the interface boundary is completed, the UGLRL PPO and ARTC PPO must ensure that possession protection is removed.

#### UGLRL only LPA

Where a UGLRL only LPA is to be obtained, the UGLRL Possession Protection Officer must request from the ARTC Network Controller permission to clip and lock points to exclude rail traffic entry to the CRN for the duration of the possession.

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work

#### ARTC only LPA

Where an ARTC only LPA is to be obtained, the ARTC Possession Protection Officer must request from the ARTC Network Controller permission to clip and lock points to prevent rail traffic entry from the CRN for the duration of the possession.

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work

**Track Occupancy Authority (TOA)**

The UGLRL Network Control Officer is responsible for implementing a TOA when a worksite is established on the CRN up to the Operational Interfaces.

The ARTC Network Controller is responsible for implementing a TOA when a worksite is established on the ARTC Network up to the Operational Interfaces.

When a TOA worksite extends beyond an operational interface, or the worksite is located within 500m of an operational interface, separate TOA's must be issued by the UGLRL Network Control Officer and the ARTC Network Controller.

**Track Work Authorities (TWA)**

The ARTC Network Controller is responsible for implementing a TWA when a worksite is established on the ARTC Network up to the Operational Interfaces

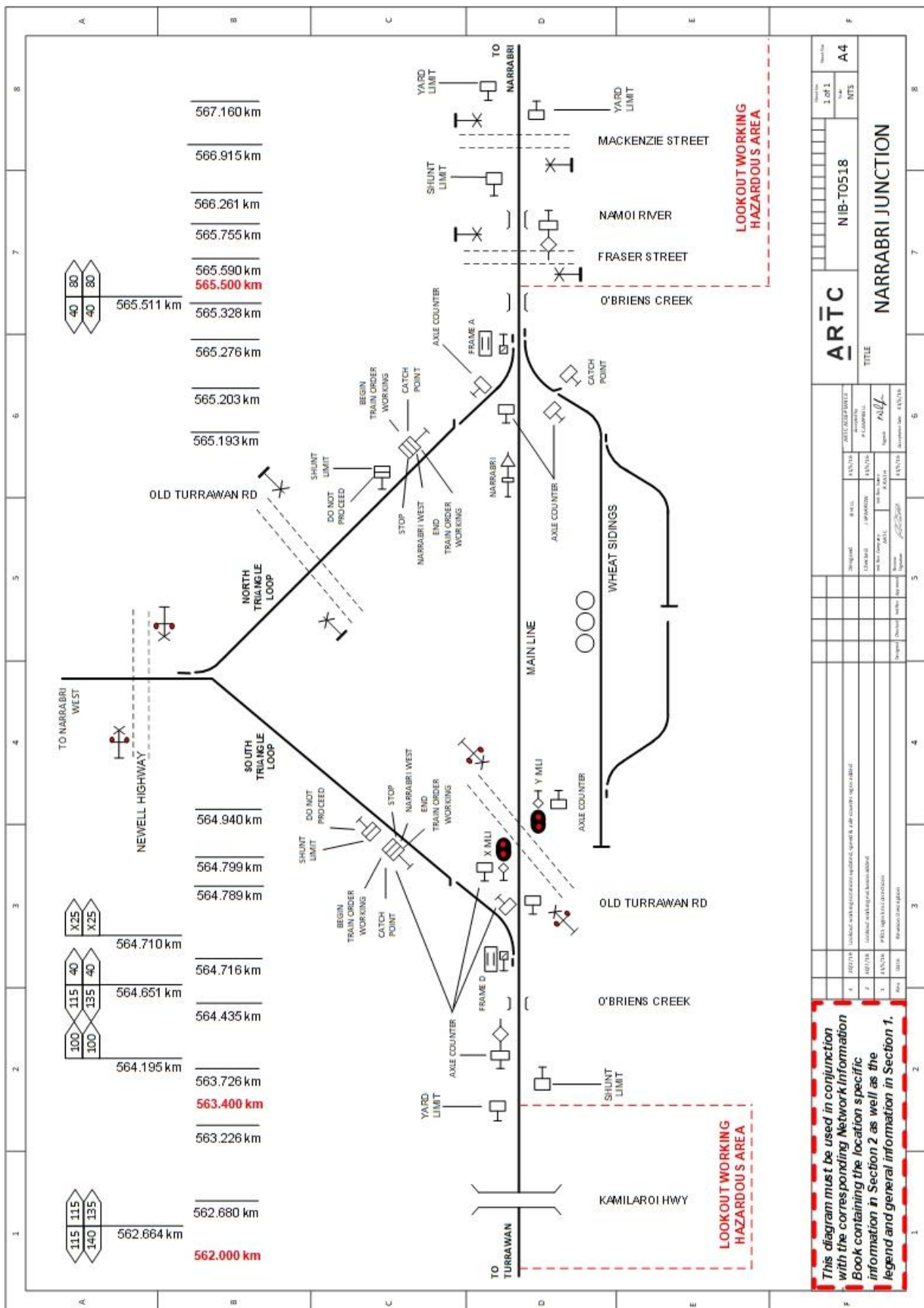
The UGLRL Network Control Officer is responsible for implementing a TWA when a worksite is established on the CRN up to the Operational Interfaces.

TWAs must not extend beyond the operational interfaces.

**Route Control Blocking (RCB)**

The use of RCB is not permitted in the ARTC Network.

## Turravan to North Star Locations and Sections Information



### 3.3 Narrabri (NBI)

#### General Arrangements

Narrabri is a Train Order Siding Location.

Narrabri Junction, Narrabri and Narrabri North are discreet Train Order Locations separated by back to back Yard Limit Signs. There is no section between each location.

A manned passenger station is located on the main line

Loop length 435 metres

#### Yard Limits

A YARD LIMIT sign is located at 567.160km to indicate the Narrabri yard limit in the down direction.

A YARD LIMIT sign is located at 571.299km to indicate the Narrabri yard limit in the up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 570.520km to indicate the Narrabri shunting limit in the down direction.

A SHUNT LIMIT sign is provided at 568.200km to indicate the Narrabri shunting limit in the up direction

#### Operation of Points and Signals

All interlocked points are operated from ground frames.

#### Ground Frames

##### Frame B

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

Frame B is unlocked by a key from Duplex Lock B.

##### Frame E

Frame E is located on the Down side of the main line adjacent to the points and provides access to the Goods siding.

Frame E is unlocked by a key from Duplex Lock E.

##### Frame F

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

Frame F is unlocked by a key from Duplex Lock F.

##### Frame H

Frame H is located on the Down side of the main line adjacent to the points and provides access to the Goods siding.

Frame H is unlocked by Operator Key.



**Main Line Indicators**

Main Line Indicator (X MLI) is located on the country approach to the level crossing. For traffic travelling in the UP direction the X MLI will display a STOP indication for 15 minutes prior to the scheduled arrival and 1 hour after the scheduled departure of the daily passenger train.

During this time, trains will be required to Clear X MLI via the pushbuttons provided on Narrabri platform prior to proceeding across Fitzroy Street level crossing.

At all other times, the X MLI will display a Pulsating White aspect indicating the level crossing will activate on approach.

All trains stopping at Narrabri Yard will be required to cancel the X MLI via the pushbuttons provided, or via the Duplex Locks B or F. The level crossing warning equipment will cancel after 120 seconds.

**Duplex Locks**

Duplex Locks B and F enable the warning equipment at Fitzroy Street level crossing to be cancelled for shunting trains.

The Duplex Lock for each ground frame holds the Annett key used to release the frame captive until released by an Operator's key. This will place X MLI to STOP and after 120 seconds cancel the operation of the level crossing warning equipment.

**Fitzroy Street Level Crossing**

Type F flashing lights and bells are provided at Fitzroy Street level crossing at 568.850km.

The warning equipment is activated via axle counter train detection equipment for down and up trains on the main line, and manually controlled by the operation of duplex locks.



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### 3.4 Narrabri North

#### General Arrangements

Narrabri North is a Train Order Siding location.

Narrabri North has a single siding also known as Auscott siding or North-West Commodities or Christakos Cotton siding. This siding is clear of Train Order Territory.

Narrabri North and Narrabri are discreet Train Order Locations separated by back to back Yard Limit signs. There is no section between each location.

#### Yard Limits

A YARD LIMIT sign is located at 571.299km to indicate the Narrabri North yard limit in the down direction.

A YARD LIMIT sign is located at 574.664km to indicate the Narrabri North yard limit in the up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 574.164km to indicate the Narrabri North shunting limit in the down direction.

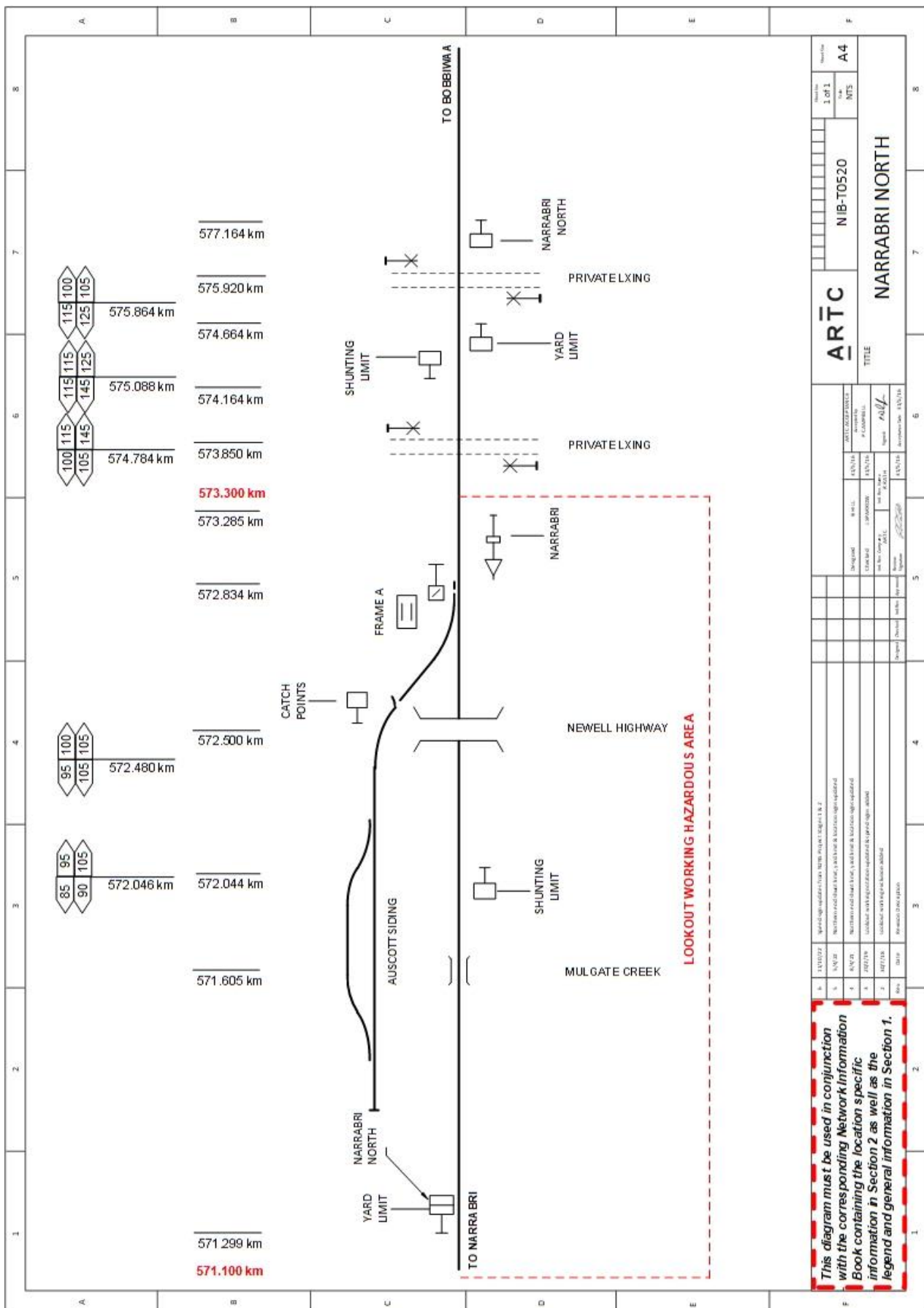
A SHUNT LIMIT sign is provided at 572.044km to indicate the Narrabri North shunting limit in the up direction

#### Ground Frames

Frame A is located on the Down side of the main line adjacent to the points and provides access to the North West Commodities siding.

Frame A is released by an Operator's key.

## Turravan to North Star Locations and Sections Information



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### 3.5 Bobbiwaa (BOB)

#### General Arrangements

Bobbiwaa is a Train Order location with a crossing Loop and Maintenance Siding.

Crossing Loop length 1926m

Maintenance Siding length 254m

#### Main Line Indicators (MLI)

"A" MLI is located at 589.888km for Down direction rail traffic

"AM" MLI is located at 590.023km for Up direction rail traffic

"C" MLI is located at 592.115km for Up direction rail traffic

"CM" MLI is located at 591.952km for Down direction rail traffic

"X" MLI is located at 593.238km for Down direction rail traffic

#### Yard Limits

A YARD LIMIT sign is located at 588.150km to indicate the Bobbiwaa Yard in the Down direction.

A YARD LIMIT sign is located at 594.737km to indicate the Bobbiwaa Yard Limit in the Up direction.

#### Shunt Limits

SHUNT LIMIT sign is provided at 593.238km to indicate the Bobbiwaa Shunting Limit in the Down direction.

SHUNT LIMIT sign is provided at 588.650km to indicate the Bobbiwaa Shunting Limit in the Up direction.

#### Point Machines

"A" Points are located at 589.902km and provide access to the Loop and are operated by pushbuttons and unlocked by Operator's Key.

"BA" Catch Point is located at 591.489km (Maintenance Siding) and is operated by pushbuttons and unlocked by Operator's Key.

"BB" Points are located at 591.658km (Bobbiwaa Loop) and provide access to the Maintenance Siding and are operated by pushbuttons and unlocked by Operator's Key.

"C" Points are located at 592.050km and provide access to the Loop and are operated by pushbuttons and unlocked by Operator's Key.

#### Point Indicators

"AL" (loop line) is located at 590.023km

"BL" (loop line) is located at 591.486km

"BS" (maintenance siding) is located at 591.486km

"B" (loop line) is located at 591.668km

"CL" (loop line) is located at 591.952km

**Operation of Points, Main Line Indicators and Point Indicators**

“A”, “B” and “C” MLI / Point Indicator pushbutton panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

“X” MLI only has “clear or cancel” and is positioned prior to the Tarlee Road Level Crossing.

To operate the “A”, “B” and “C” MLI / Point Indicator pushbuttons,

- Depress “Cancel Indication” button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes
- Depress “Points Reverse” / “Points Normal”
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position, after rail traffic has occupied and then is clear of the track circuit, the points will return to the normal position, after a time release of 45 seconds.

**Through Movements**

The MLI will normally display a pulsating white aspect and when rail traffic occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” rail traffic movement to proceed through Bobbiwaa at permitted line speed on the main line.

**Entry into the Loop**

For movements into the Loop, rail traffic must STOP at “A” or “C” MLI.

The Competent Worker must press the “Cancel Indication” button to place the MLI’s to STOP. Following a time release of four minutes, the points will become free to operate to the Loop. The Competent Worker must ensure that the “Points Free” light is displayed prior to pressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Loop.

To cancel the route into the Loop, press the “Cancel Indication” button, which will restore the MLI to STOP. After a time release of four minutes, the points will restore to the normal position. Then pressing the “Points Normal” button, the MLI will clear provided the conditions are met.

**Exit from the Loop**

To exit the Loop, press the “Cancel Indication” button provided in the push button panel near the point indicator. The points free indicator will flash after a four-minute time delay. Press the “Points Reverse” button in the “A” or “C” pushbutton panel, once the points have operated to the reverse position, the Point Indicator will display a White Arrow indicating the points are set and locked for the route.

## Turrawan to North Star Locations and Sections Information

To cancel the route out of the Loop, press the “Cancel Indication”, the point indicator will display a red light once the rail traffic has cleared the track circuit and after a time-release of four minutes, the points will be self-restored to the normal position. Press “Cancel Indication” to restore the Main Line Indicator to a Pulsating White light.

**Entry to Maintenance Siding from Loop**

Entry to the Maintenance Siding at Bobbiwaa is via the Loop line only, in the Up direction. Rail traffic must STOP at “B” Point Indicator. The Competent Worker must press the “Cancel Indication”. Following a time release of four minutes, the points will become free to operate into the Maintenance siding. The Competent Worker must ensure the ‘Points Free’ light is displayed prior to pressing the “Points Reverse” button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

To cancel the route into the Maintenance siding, press the “Cancel Indication” button, the point indicator will display a red light. After a time-release of four minutes, the points will self-restore to the normal position.

**Exit from Maintenance Siding to Loop**

To exit from the Maintenance siding, rail traffic must STOP at “BS” Point Indicator. The Competent Worker must press the “Cancel Indication”. Following a time release of four minutes the points will become free to operate into the Loop. The Competent Worker must ensure the “Points Free” light is displayed and prior to pressing the “Points Reverse” button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

To cancel the route to the Loop, press “Cancel Indication” button, the point indicator will display a red light. After a time-release of four minutes, the points will self-restore to the normal position.

**Tarlee Road Level Crossing 593.353km**

Type F flashing lights, audible warning device and booms are provided at the Tarlee Road level crossing at 593.353km.

Emergency Switches for the isolation of the level crossing warning equipment is located on the outside of the Level Crossing Equipment Hut. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

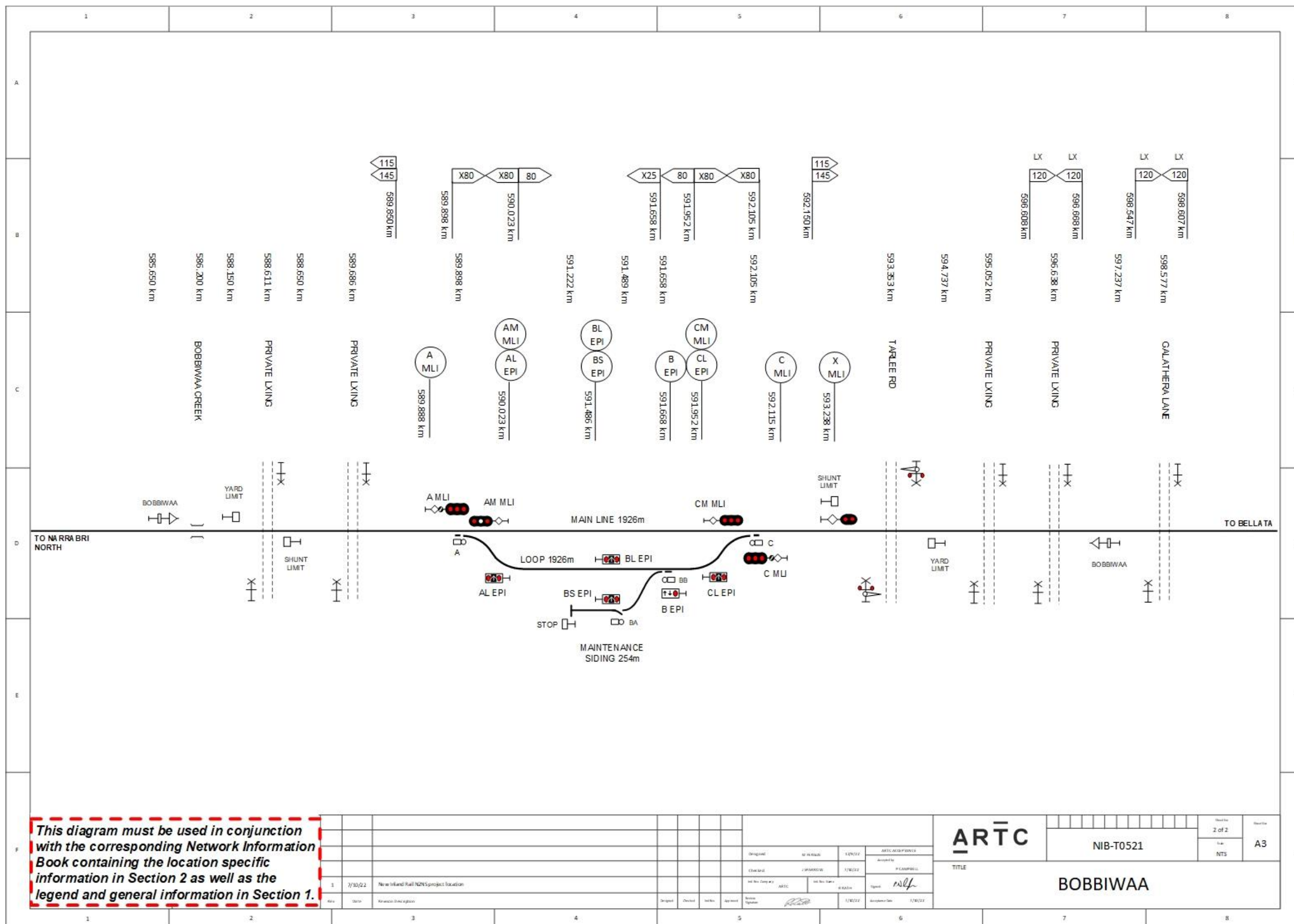
A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 are provided on the outside of the Level Crossing Equipment Hut.

The manual operation switch box is unlocked by SL key. The manual operation switch box MUST be kept closed and secured by an SL lock when not in use.

Tarlee Road level crossing will be remotely monitored from the Network Control Centre North by 4Site (Cerberus) Alarm Monitoring System.



### Turrawan to North Star Locations and Sections Information





### 3.6 Bellata (BLT)

#### General Arrangements

Bellata is a Train Order Siding location. All sidings at Bellata are clear of Train Order Territory.

Passenger station is located on the main line.

Bellata South Siding 1 length 669m

Bellata South Siding 2 length 1119m

Grain Siding 1 length 450m

Grain Siding 2 length 450m

#### Main Line Indicators (MLI)

"A" MLI is located at 614.613km for Down direction rail traffic

"AM" MLI is located at 614.900km for Up direction rail traffic

"B" MLI is located at 615.120km for Down direction rail traffic

"BM" MLI is located at 615.255km for Up direction rail traffic

"CM" MLI is located at 615.927km for Down direction rail traffic

"CS" MLI is located at 615.927km for Down direction rail traffic

"C" MLI is located at 616.265km for Up direction rail traffic

#### Yard Limits

A YARD LIMIT sign is located at 612.763km to indicate the Bellata yard limit in the Down direction.

A YARD LIMIT sign is located at 618.115km to indicate the Bellata yard limit in the Up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 617.615km to indicate the Bellata Shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 613.263km to indicate the Bellata Shunting limit in the Up direction.

#### Point Machines

"AA" Points are located at 614.826km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key.

"BA" Points are located at 615.130km and provide access to the Bellata South Siding 1 and are operated by push buttons and unlocked by Operator's Key.

"CB" Points are located at 616.033km and provide access to the Bellata South Siding 1 and are operated by push buttons and unlocked by Operator's Key.

#### Point Indicators

"AS" EPI (South Siding 2) is located at 614.900km

"BS" EPI (South Siding 1) is located at 615.255km

**Operation of Points, Main Line Indicators and EPI's**

"A", "B" and "C" MLI / EPI push button panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

To operate the "A", "B" and "C" MLI pushbuttons,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress "Points Reverse" / "Points Normal"
- Observe Indication on MPI

"BS" and "AS", EPI pushbutton panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

"A", "B" EPI pushbutton panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

To operate the "A", "B" EPI pushbuttons,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress "Points Reverse" / "Points Normal"
- Observe Indication on MPI / EPI

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position after traffic has occupied and then is clear of the track circuit, the points will return to normal position, after a delay of 45 seconds.

**Through Movements**

The MLI will normally display a pulsating white aspect and when rail traffic occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a "through" rail traffic movement to pass through Bellata at permitted line speed on the main line.

**Entry into South Siding 2**

Rail traffic is to stop clear of "A" MLI, open A points remote pushbutton cabinet,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes
- Depress "Points Reverse"
- Observe White band of lights displayed in "A" MLI

**Entry into South Siding 1**

Rail traffic is to stop clear of "B" MLI, open B points pushbutton cabinet,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes
- Depress "Points Reverse"
- Observe White band of lights displayed in "B" MLI

**Exit from South Siding 2**

Rail traffic is to stop clear of "AS" Point Indicator, open A points pushbutton cabinet,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes
- Depress "Points Reverse"
- Observe White Arrow displayed in "AB" Point Indicator

**Exit from South Siding 1**

Rail traffic is to stop clear of "BS" Point Indicator, open B points push button cabinet,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes
- Depress "Points Reverse"
- Observe White Arrow displayed in "BS" Point Indicator

**Location of Pushbuttons**

"A" Points Remote Pushbuttons @ 614.613km

"A" Points Pushbuttons @ 614.900km

"C" Points Pushbuttons @ 615.927km

"C" Points Remote Pushbuttons @616.265km

Down Direction Shunter's Pushbutton @616.035km

Up Direction Shunter's Pushbutton @ 616.065km

**Signage**

Signage is provided on the South Siding 1 at 615.701km (Down Direction) and 615.807km (Up Direction) advising Competent Workers to **“Check Position of Points”**.

Signage is provided on the South Siding 2 at 615.492km (Down Direction) advising Competent Workers to **“Check Position of Points”**.

**Millie Road Level Crossing 616.045km**

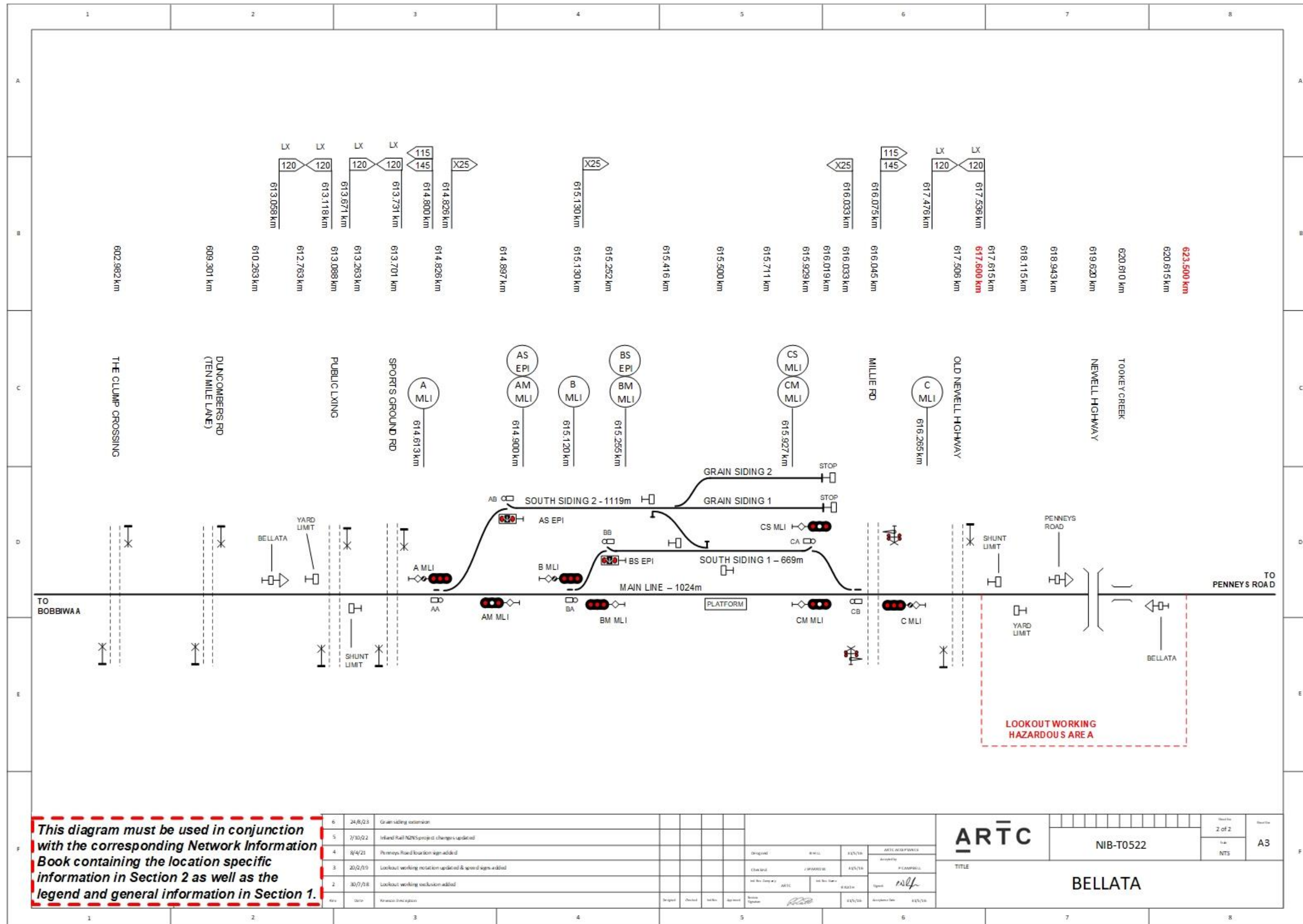
Type F flashing lights, audible warning device and booms are provided at the Millie Road level crossing at 616.045km.

Emergency Switch for the isolation of the level crossing warning equipment is located on the outside of the Level Crossing Equipment Hut. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 are provided on the outside of the Level Crossing Equipment Hut.

The manual operation switches are unlocked by SL key. The manual operation switches **MUST** be kept closed and secured by an SL lock when not in use.

Millie Road level crossing will be remotely monitored from the Network Control Centre North by 4Site (Cerberus) Alarm Monitoring System.



### 3.7 Penneys Road (EWB)

#### General Arrangements

Penneys Road is a Train Order Siding location.

The AWB balloon loop and siding are clear of Train Order Territory.

Main Line Indicators (MLI)

“A” MLI is located at 623.593km for Down direction rail traffic

“AM” MLI is located at 623.715km for Up direction rail traffic

#### Yard Limits

A YARD LIMIT sign is located at 621.743km to indicate the Penneys Road Yard limit in the Down direction.

A YARD LIMIT sign is located at 626.934km to indicate the Penneys Road Yard limit in the Up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 624.084km to indicate Penneys Road Shunting Limit in the Down direction.

A SHUNT LIMIT sign is provided at 622.243km to indicate Penneys Road Shunting limit in the Up direction.

#### Point Machine

“AA” Points are located at 623.603km and provide access to the Penneys Road siding from the Main line and are operated by pushbuttons and unlocked by an Operators Key.

“AB” catch points are located at 623.712km on the Penneys Road Siding.

#### Point Indicator

“AL” Point Indicator (siding) is located at 623.715km

#### Operation of Points and Main Line Indicators

“A” MLI / Point Indicator push button panel contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

To operate the “A” MLI / Point Indicator pushbuttons,

- Depress “Cancel Indication” button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress “Points Reverse” / “Points Normal”
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use.

## Turravan to North Star Locations and Sections Information

The points are provided with a self-normalising feature. When set in the reverse position after rail traffic has occupied and then is clear of the track circuit, the points will return to normal position, after a delay of 45 seconds.

**Penneys Road Level Crossing 625.509km**

Type F flashing lights, audible warning device and booms are provided at the Penneys Road level crossing at 625.509km.

Emergency Switch for the isolation of the level crossing warning equipment is located on the outside of the Level Crossing Equipment Hut. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

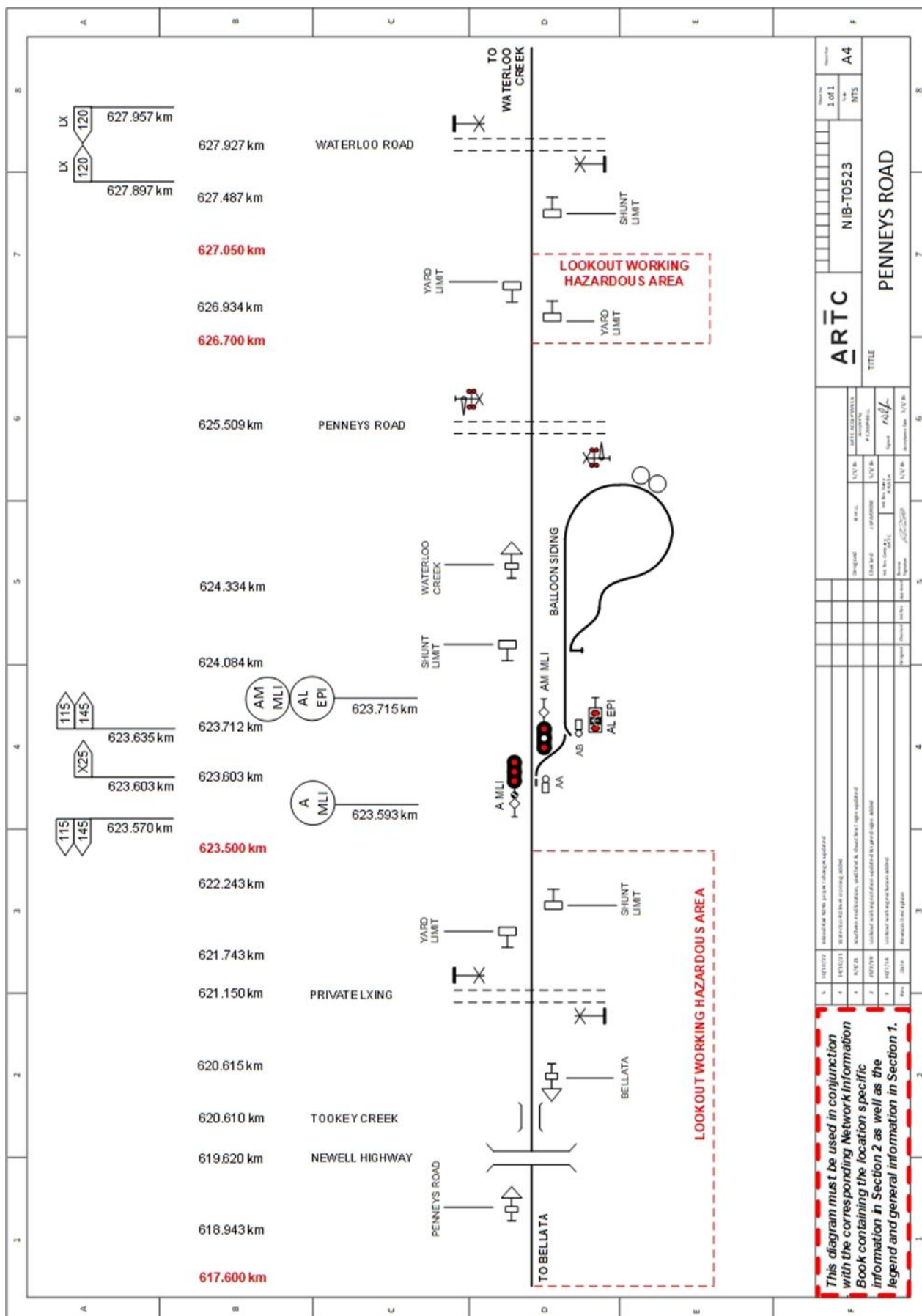
A manual operation switch for use by Competent Workers in accordance with the requirements detailed in ARTC Network Rule ANGE 218 are provided on the outside of the Level Crossing Equipment Hut.

The manual operation switches are unlocked by SL key. The manual operation switches **MUST** be kept closed and secured by an SL lock when not in use.

Penneys Road level crossing will be remotely monitored from the Network Control Centre North by 4Site (Cerberus) Alarm Monitoring System.



## Turravan to North Star Locations and Sections Information





### 3.8 Waterloo Creek (WLC)

#### General Arrangements

Waterloo Creek is a Train Order location with a Crossing Loop

Crossing Loop length 1921m

#### Main Line Indicators (MLI)

"A" MLI is located at 628.516km for Down direction rail traffic

"AM" MLI is located at 628.675km for Up direction rail traffic

"C" MLI is located at 630.758km for Up direction rail traffic

"CM" MLI is located at 630.599km for Down direction rail traffic

#### Yard Limits

A YARD LIMIT sign is located at 626.934km to indicate the Waterloo Creek Yard Limit in the Down direction.

A YARD LIMIT sign is located at 632.548km to indicate the Waterloo Creek Yard Limit in the Up Direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 632.048km to indicate the Waterloo Creek Shunting Limit in the Down direction.

A SHUNT LIMIT sign is provided at 627.487km to indicate the Waterloo Creek Shunting Limit in the Up direction.

#### Point Machines

"A" Points are located at 628.526km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key.

"B" Points are located at 630.748km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key.

#### Point Indicators

"AL" Point Indicator (Loop line) is located at 628.675km

"CL" Point Indicator (Loop line) is located at 630.599km

#### Operation of Points, Main Line Indicators and Point Indicators

"A" and "C" MLI pushbutton panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

To operate the "A" and "C" MLI pushbuttons,

- Depress "Cancel Indication" button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress "Points Reverse" / "Points Normal"

## Turrawan to North Star Locations and Sections Information

- Observe Indication on MPI

**Through Movements**

The MLI will normally display a pulsating white aspect and when a rail traffic movement occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” rail traffic movement to pass through Waterloo Creek at permitted line speed on the Main line.

**Entry into the Loop**

For rail traffic movements into the Loop line from the Main line, the rail traffic must stop at “A” or “C” MLI.

To operate the “A” and “C” MLI pushbuttons,

- Depress “Cancel Indication” button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress “Points Reverse”
- Observe White band of lights displayed in “A” or “C” MLI

To cancel the route into the Loop line, depress “Cancel Indication” button, which will result in the band of lights being extinguished. The points will self-restore to normal once they become free. After the points have been normalised, with depressing of the “Points Normal” button the MLI will clear to a pulsating white.

**Exit from the Loop**

Rail traffic is to stop clear of “AL” or “CL” EPI, open points pushbutton cabinet,

- Depress “Cancel Indication” button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress “Points Reverse”
- Observe White Arrow displayed in “AL” or “CL” EPI

To cancel the route out of the Loop line, press “Cancel Indication”, this will result in extinguishing of the White Arrow and display of a Red aspect on the Point Indication. The points will be self-restored to normal once they become free. Press “Cancel Indication” to restore the main line indicator to a Pulsating White.

## Turravan to North Star Locations and Sections Information

**Gurley Creek Road Level Crossing**

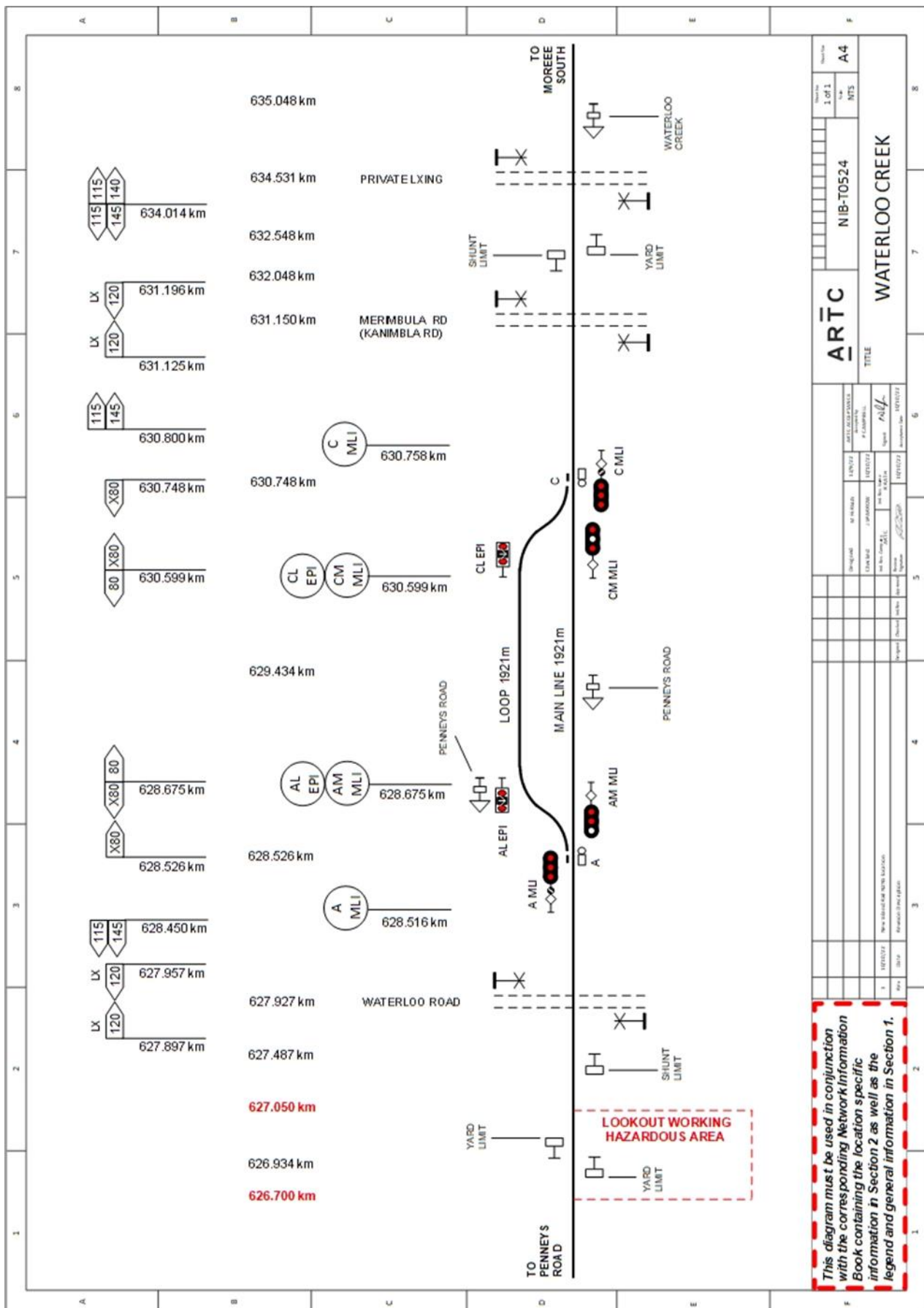
Type F level crossing protection with roadside flashing lights, booms and audible warning devices is provided at 635.705km.

The Emergency, Test and Manual Operations switches is located on the outside of the Level Crossing Equipment Hut at 635.670km on the Down side of the track. The level crossing test and emergency keys are located at Narrabri Provisioning Centre.

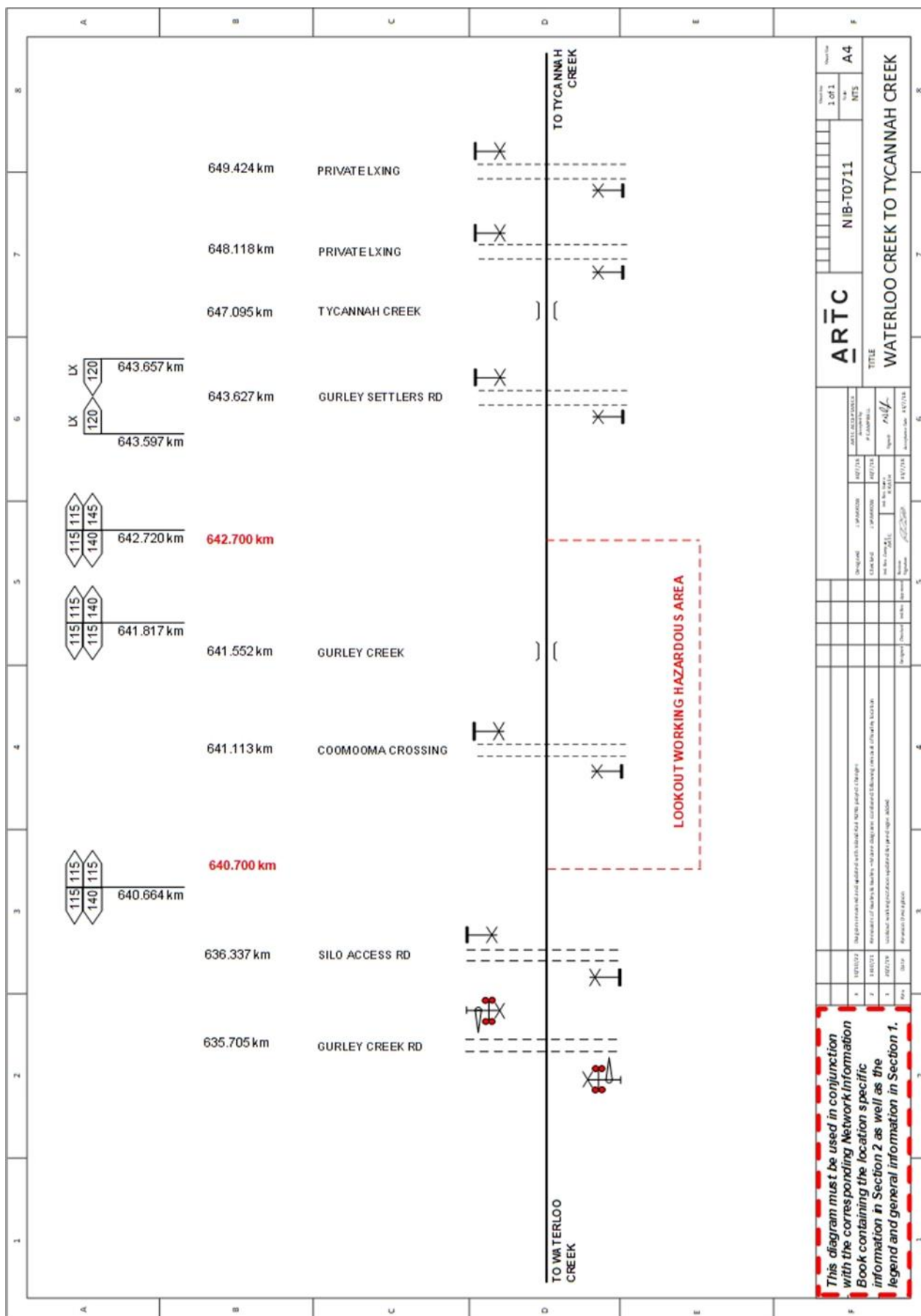
The level crossing is fitted with axle counters, axle counter and trackside signs are located at:

Direction	Location	Description
Down Direction	634.280	Standard Type level crossing trackside sign and Axle counter sign
Down Direction	635.690	Axle counter sign
Up Direction	637.130	Standard Type level crossing trackside sign and Axle counter sign
Up Direction	635.720	Axle counter sign

## Turravan to North Star Locations and Sections Information



## Turravan to North Star Locations and Sections Information



### 3.9 Tycannah Creek

Tycannah Creek is a Train Order location with a crossing loop and maintenance siding.

- Crossing Loop Length 1921m
- Maintenance Siding 257m

#### Main Line Indicators (MLI)

“A” MLI is located at 655.382km for Down direction rail traffic

“AM” MLI is located at 655.545km for Up direction rail traffic

“CL” MLI is located at 657.469km for Down direction rail traffic (Loop)

“CM” MLI is located at 657.469km for Down direction rail traffic (Main)

“C” MLI is located at 657.631km for Up direction rail traffic

“D” MLI is located at 657.807km for Down direction rail traffic

#### Yard Limits

A YARD LIMIT sign is located at 653.532km to indicate the Tycannah Creek Yard Limit in the Down direction.

A YARD LIMIT sign is located at 657.927km to indicate the Tycannah Creek Yard Limit in the Up Direction.

#### Shunt Limits

A SHUNT LIMIT sign is provided at 657.807km to indicate the Tycannah Creek Shunting Limit in the Down direction.

A SHUNT LIMIT sign is provided at 654.032km to indicate the Tycannah Creek Shunting Limit in the Up direction.

#### Point Machines

“A” Points are located at 655.396km and provide access to the Loop and are operated by push buttons and unlocked by an Operator's Key.

“BA” Catch Points are located at 657.220km (Maintenance Siding) and are operated by pushbuttons and unlocked by an Operator's Key

“BB” Points are located at 657.389km (Tycannah Creek loop) and provide access to the Maintenance Siding and are operated by push buttons and unlocked by an Operator's Key.

“C” Points are located at 657.617km and provide access to the Loop and are operated by push buttons and unlocked by an Operator's Key.

#### Point Indicators

“AL” (Loop line) is located at 655.545km

“BL” (Loop line) is located at 657.217km

“BS” (Maintenance siding) is located at 657.217km

“B” (Loop line) is located at 657.399km

**Operation of Points, Main Line Indicators and Point Indicators**

“A”, “B” and “C” MLI / Point Indicator pushbutton panels contain three pushbuttons,

- Cancel Indication
- Points Normal
- Points Reverse

“D” MLI only has “Set or Cancel” and is positioned prior to the Tapscott Road Level Crossing, Rail Traffic that are not in the possession of a through Train Order are to place “D” MLI at STOP. The Competent Worker must depress “Cancel” in the “D” MLI Pushbutton panel which places the MLI at Stop cancelling the operation of the level crossing after 4 minutes.

To operate the “A”, “B” and “C” MLI / Point Indicators pushbuttons,

- Depress “Cancel Indication” button for 2 seconds
- Point free indicator will flash illuminated until points become free after four minutes.
- Depress “Points Reverse” / “Points Normal”
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self- normalising feature. When set in the reverse position, after rail traffic has occupied and then is clear of the track circuit, the points will return to the normal position, after a time release of 45 seconds

**Indicator Sign**

An indicator sign is located at 657.807km in the Down direction to indicate to rail traffic crews to place the MLI to STOP if not in possession of a through Train Order.

**Through Movements**

The MLIs will normally display a pulsating white aspect and when rail traffic occupies the approach track circuit. The MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” rail traffic movement to proceed through Tycannah Creek at permitted line speed on the Main line.

“D” MLI will display a steady Yellow aspect when rail traffic occupies the approach track circuit, this indicates that the Tapscott Road level crossing is active.

**Entry into the Loop**

For movements into the loop, rail traffic must STOP at “A” or “C” MLI.

The Competent Worker must depress the “Cancel Indication” button to place the MLIs to STOP. Following a time release of four minutes, the points will become free to operate to the Loop. The Competent Worker must ensure that the “Points Free” light is displayed prior to depressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display Angled White Lights to the Loop.

## Turrawan to North Star Locations and Sections Information

To cancel the route into the Loop, depress the 'Cancel Indicators' button, which will restore the MLI to STOP. After a time release of four minutes, the points will restore to the normal position. Then depressing the "Points Normal" button, the MLI will clear provided the conditions are met.

**Exit from the Loop**

To exit the Loop, depress the "Cancel Indicators" button provided in the push button panel near the point indicator. The points free indicator will flash and after a four-minute time delay the light will extinguish. Depress the "Points Reverse" button in the "A" or "C" pushbutton panel, once the points have operated to the reverse position, the Point Indicator will display a White Arrow indicating the points are set and locked for the route.

To cancel the route out of the Loop, depress the "Cancel Indicators" button. The point indicator will display a red light once the rail traffic has cleared the track circuit and after a time release of four minutes, the points will be self-restored to the normal position. Depress the "Cancel Indicators" button to restore the Main Line Indicator to a Pulsating White light.

**Entry into Maintenance Siding from Loop**

Entry to the Maintenance Siding at Tycannah Creek is via the Loop line only, in the Up direction. Rail Traffic must STOP at the "B" Point Indicator. The Competent Worker must depress the "Cancel Indicator" button. Following a time release of four minutes, the points will become free to operate into the Maintenance Siding. The Competent Worker must ensure the "Points Free" light is displayed prior to depressing the "Points Reverse" button.

Once the points have operated to the reverse position, the points free indication extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

To cancel the route into the Maintenance Siding, depress the "Cancel Indicators" button, the point indicator will display a red light. After a time release of Four minutes the points will self-restore to the normal position.

**Exit from Maintenance Siding to Loop**

To exit from the Maintenance Siding, rail traffic must STOP at the "BS" Point Indicator. The Competent Worker must depress the "Cancel Indicators" button. Following a time release of four minutes the points will become free to operate into the Loop. The Competent Worker must ensure the "Points Free" light is displayed prior to depressing the "Points Reverse" button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

To cancel the route to the Loop, depress the "Cancel Indicators" button, the point indicator will display a red light. After a time release of four minutes, the points will self-restore to the normal position.



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### 3.10 Moree South (MRS)

#### General Arrangements

Moree South is a Train Order siding location with multiple sidings known as Stockyard, Louis Dreyfus Commodities, Silo and Wheat sidings.

Moree South and Moree are discreet Train Order Locations separated by back to back Yard Limit signs. There is no section between each location.

#### Yard Limits

A YARD LIMIT sign is located at 657.927km to indicate the Moree South yard limit in the Down direction.

A YARD LIMIT sign is located at 664.599km to indicate the Moree South yard limit in the Up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 664.501km to indicate the Moree South shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 658.247km to indicate the Moree South shunting limit in the Up direction.

#### Tapscott Road Level crossing 658.027km

Type F flashing lights with bells and half boom barriers are provided at Tapscott Road level crossing at 658.027km.

The warning equipment is automatically controlled by axle counters for Up and Down trains on the main line and manually controlled by duplex locks for rail traffic shunting Moree Saleyard siding and Louis Dreyfus Commodities Siding.

#### Duplex Lock D

Duplex Lock D is provided on the Main Line near frame D to enable the operation of the warning equipment at Tapscott Road level crossing to be cancelled for rail traffic shunting the Moree Saleyard siding.

The top lock of Duplex lock D is unlocked by the Operator's key.

When the Operator's key is turned in the top lock, this will cancel the level crossing warning equipment and release the key from the bottom lock.

#### Duplex Lock A

Duplex Lock A (Louis Dreyfus Commodities Siding) is provided on the Main Line near frame A to enable the operation of the warning equipment at Tapscott Road level crossing to be cancelled for rail traffic shunting the Louis Dreyfus Commodities siding.

The top lock of Duplex lock A is unlocked by the Operator's key.

When the Operator's key is turned in the top lock, this will cancel the level crossing warning equipment and release the key from the bottom lock.

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**WARNING** *To avoid delays to road traffic, the operator's key must not be removed from the duplex lock until all shunting movements have been completed and the rail traffic is ready to depart.*

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**Main Line Indicator**

Main Line Indicators (MLI's) are provided in the Up and Down direction for the Tapscott Road level crossing.

"Y" MLI is facing to the Up directional rail traffic and is located on the Countryside of the level crossing and is located at 658.247km.

"D" MLI is facing to the Down directional rail traffic and is located on the Sydney side of the Tapscott Road level crossing and is located at 657.807km.

The warning equipment is automatically controlled by track circuits for the Up and Down directional rail traffic on the main line. Provided "Y" and "D" MLI's are clear, approaching rail traffic will activate the operation of the level crossing.

The MLI's can be placed at Stop by either of two methods:

1. Through the use of the Set / Cancel Button located on the "Y" and "D" MLIs. With rail traffic stopped on the approach track to the MLI, if the Cancel button is depressed for (2) two seconds the MLI will be placed at STOP. Placing the MLI at STOP will cancel the operation of the level crossing after (4) four minutes.  
When the Rail Traffic is ready to proceed the Tapscott level crossing will need to be activated via the use of the Set/Cancel Button located on the "Y" or "D" MLI's. By depressing the Set Button, the Tapscott Rd level crossing will activate and after a period of (4) four minutes the MLI will clear.
2. Through the operation of the duplex lock at Frame D or Frame A will cause Y MLI to return to the STOP position. If rail traffic occupies either of the approach tracks within 240 seconds of the MLI being placed at STOP the level crossing warning equipment will operate but will cease operation after the 240 seconds has elapsed.

The MLI may be cleared provided Duplex locks D and A are restored to the Normal position and the route in the departing direction is clear. To clear the MLI, the "Set" button located on the MLI must be pressed for one second. This will commence the operation of the level crossing warning equipment and once the half boom barriers are fully descended the MLI will display a pulsating white indication.

**Ground Frames****Frame D (Saleyards Siding)**

Frame D is located on the Down side of the main line adjacent to the points and provides access to the Moree Saleyards siding.

Frame D is unlocked by key from Duplex Lock D.

**Frames A and B (Louis Dreyfus Commodities Siding)**

Frames A and B are located on the Down side of the main line adjacent to the points and provide access to the Louis Dreyfus Commodities siding.

Frame A is unlocked by key from Duplex Lock A.

Duplex lock for frame B is unlocked by Operator's key, top lock releases fortress key for frame B.

**Frames A, B, C, D and E (Silo and Vegetable Siding)**

Frames A, B, C, D and E are located on the down side of the main line adjacent to the points and provide access to the Silo siding and Vegetable siding.

## Turrawan to North Star Locations and Sections Information

Frames A and B are unlocked by Operator's Key.

Duplex locks for C, D and E, top lock released by Operator's Key, bottom locks releases keys for frames C, D and E.

**Burrington Road Level Crossing 659.800km**

Type F flashing lights with bells and half boom barriers are provided at Burrington Road level crossing at 659.800km.

The warning equipment is automatically controlled by axle counters for Up and Down trains on the main line.

Shunter's Push Button (MLI Set / Cancel) are located on down side adjacent to "X" MLI and on the up country side of level crossing to enable the warning equipment at Burrington Road level crossing to be cancelled for trains shunting Louis Dreyfus Commodities siding.

If the movement is not proceeded with, the warning indications must be cancelled by pressing the "Cancel" in either of the Shunter's Push Button (MLI Set / Cancel) units located on down side adjacent to "X" MLI and on the up country side of level crossing.

The shunter's push button units must be kept closed and secured by an SL lock when not in use.

**Bulluss Drive Level Crossing 664.333km**

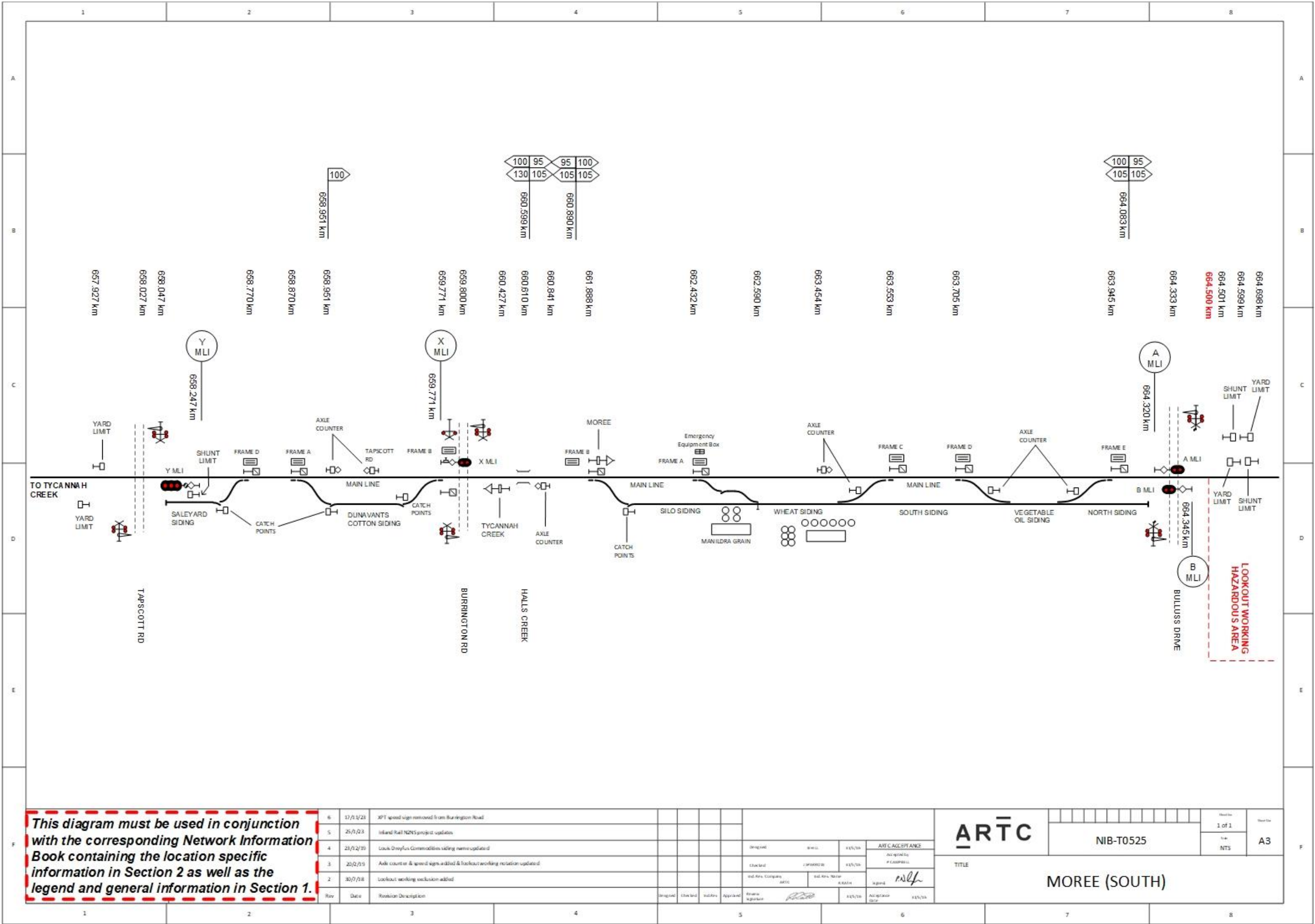
Type F flashing lights with bells and half boom barriers are provided at Bulluss Drive level crossing at 664.333 km.

The warning equipment is activated via axle counter train detection equipment for Down and Up direction rail traffic on the main line.

Shunter's Push Button (MLI Set / Cancel) are located adjacent to "A" MLI and "B" MLI and adjacent to Frame E for "A" MLI and Frame K for "B" MLI to enable the warning equipment at Bulluss Drive level crossing to be cancelled for trains shunting Moree South Vegetable Oil siding and Moree Loop siding No 1 and Loop siding No 2.

If the movement is not proceeded with, the warning indications must be cancelled by pressing the "Cancel" in either of the Shunter's Push Button (MLI Set / Cancel) units.

The shunter push button units must be kept closed and secured by an SL lock when not in use.



### 3.11 Moree (MRE)

#### General Arrangements

Moree is a Train Order siding location.

Passenger station is located on the main line.

Loop line surrounds the island platform and there is a second up siding beside loco.

NSW Trains Explorer NP43 / 44 stables in a compound off No.2 up siding.

Moree and Moree South are discreet Train Order Locations separated by back to back Yard Limit signs. There is no section between each location.

#### Yard Limits

A YARD LIMIT sign is located at 664.599km to indicate the Moree yard limit in the down direction.

A YARD LIMIT sign is located at 667.154km to indicate the Moree yard limit in the up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 666.613km to indicate the Moree shunting limit in the down direction.

A SHUNT LIMIT sign is provided at 664.698km to indicate the Moree shunting limit in the up direction

#### Operation of Points

All interlocked points at Moree station are operated from ground frames which are released by Operator Keys.

#### Ground Frames

##### Frames K and F

Frame K is located on the up side of the main line adjacent to the points and provides access to No. 1 Up siding (loop).

Frame F is located on the up side of the main line adjacent to the points and provides access to No. 1 Up siding (loop).

Duplex lock F top lock, released by Operator's Key, bottom lock releases key for frame F.

##### Frame H

Frame H is located on the up side of the main line adjacent to the points and provides access to No. 2 Up siding.

Duplex lock H top lock released by Operator's Key, bottom lock releases key for frame H.

#### Alice Street Level Crossing 665.846km

Type F flashing lights with bells and half booms are provided at Alice Street level crossing at 665.846km.

The warning equipment is automatically controlled by axle counters for Up and Down trains on the main line.



## Turrawan to North Star Locations and Sections Information

Shunter's Push Button (MLI Set / Cancel) are located adjacent to "C" MLI and "D" MLI and adjacent to Frame H to enable the warning equipment at Alice Street level crossing to be cancelled for trains shunting Moree Main and Loop siding No 1 and Loop siding No 2.

If the movement is not proceeded with, the warning indications must be cancelled by pressing the "Cancel" in either of the Shunter's Push Button (MLI Set / Cancel) units.

The shunter push button units must be kept closed and secured by an SL lock when not in use.

**3.11.1 Moree East Siding****Up Rail Traffic from Moree East Siding**

Up direction rail traffic from Moree East Siding is required to stop at the STOP sign located at 667.131km, rail traffic must not pass this STOP sign unless authorised by the ARTC NCCN Network Controller.

**Shunting Operations from Moree East Siding**

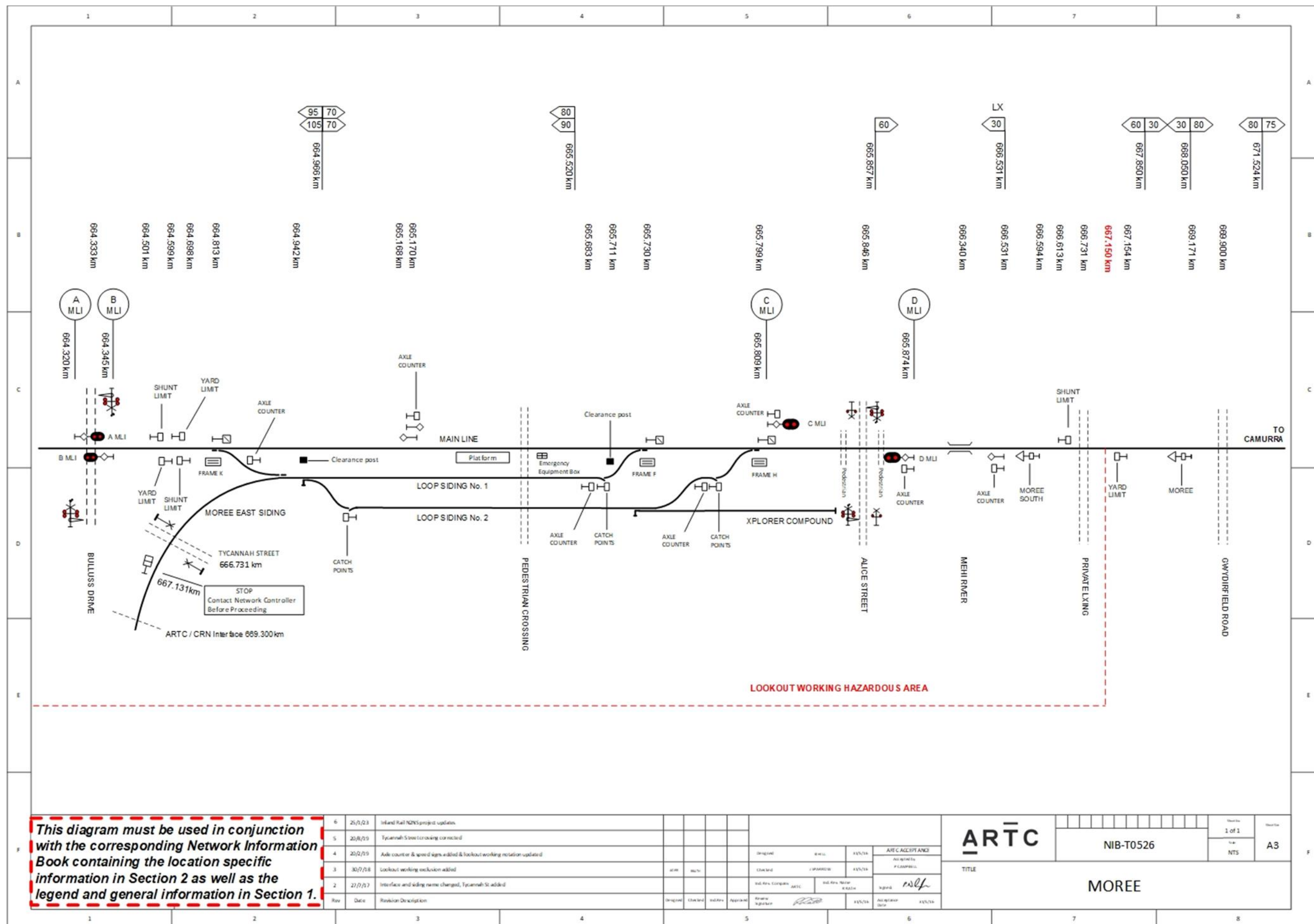
The shunting operations from the Moree East siding to Moree location in the Up direction are to use 'No. 1 Loop Siding' at Moree.

Trains lengths that exceed the 'No. 1 Loop Siding' track length, will require the train crew to operate the Alice Street level crossing via the "Shunters Push Button" provided at "C" MLI prior to proceeding past "C" MLI and be in possession of an authority issued by the Network Controller. On the train clearing the level crossing, the level crossing active operation must be cancelled by the train crew via the "Shunters Push Button".

**3.11.2 Grain Loading and Unloading Operations**

Refer Interface Agreement IA2212 Broadbent Grain





### 3.12 Camurra (CMR)

#### General Arrangements

Camurra is a Train Order block junction location, to ARTC North Star line, main line and Country Regional Network (CRN) on the Weemelah line.

Camurra West is the interface point between the ARTC and CRN train order systems. The interface point will be the Begin\End Network Control Boundary Location Signs located at 679.040kms.

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*NOTE: Rail Traffic must not depart onto the branch line without permission from the CRN Network Controller*

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#### Yard Limits

A YARD LIMIT sign is located at 675.575km to indicate the Camurra yard limit in the down direction.

A YARD LIMIT sign is located at 678.362km to indicate the Camurra yard limit in the up direction from North Star.

A YARD LIMIT sign is located at 678.219km to indicate the Camurra yard limit in the up direction from Weemelah.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 677.884km to indicate the Camurra shunting limit in the down direction towards North Star.

A SHUNT LIMIT sign is provided at 677.355km to indicate the Camurra shunting limit in the down direction towards Weemelah.

A SHUNT LIMIT sign is provided at 676.281km to indicate the Camurra shunting limit in the up direction

#### Operation of Points

Frame A interlocked points at Camurra are operated from the ground frame which is released by Operator's Key.

Frame A points are interlocked with derail devices for trains travelling in the Up direction from CRN Weemelah line and ARTC North Star line.

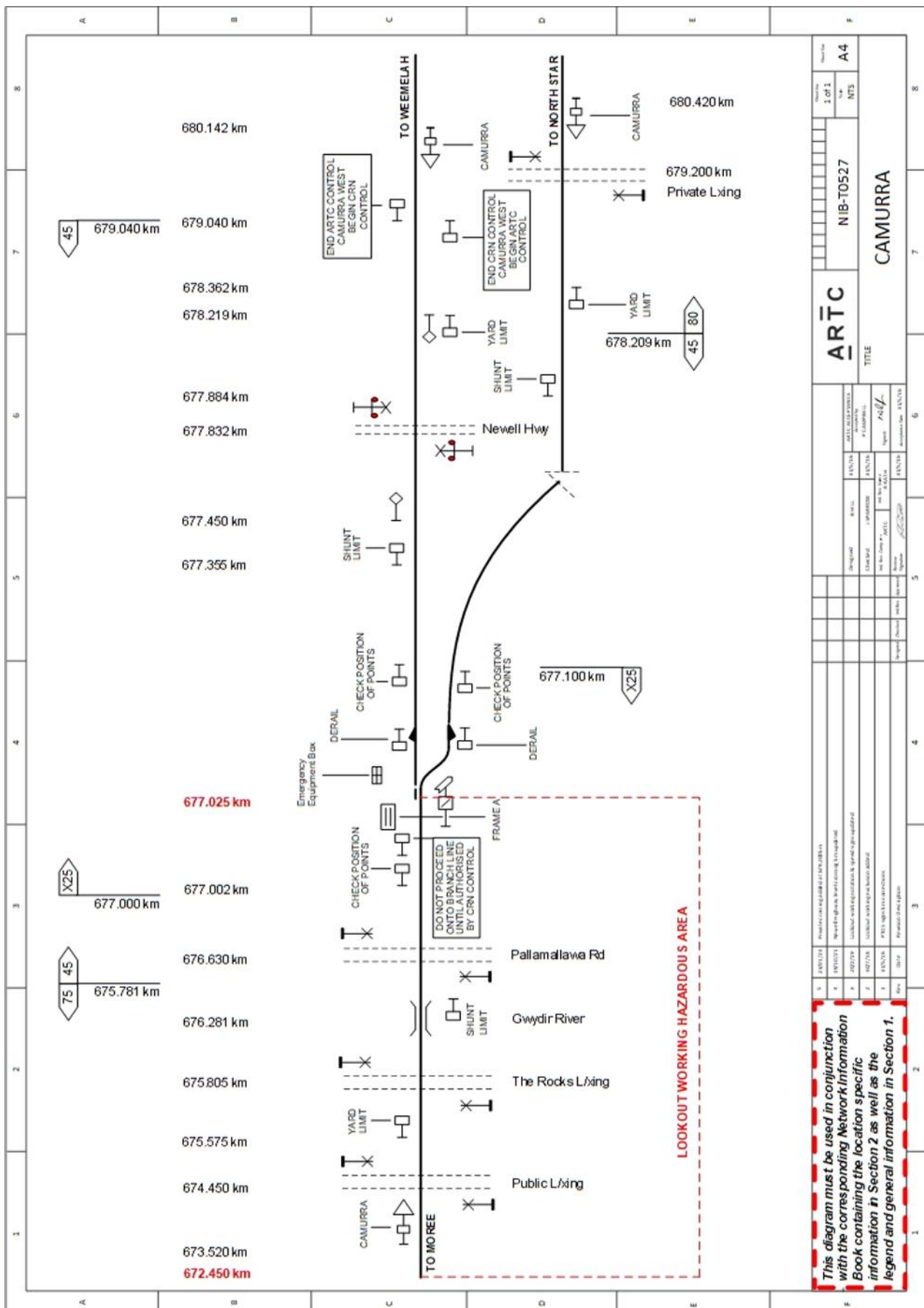
Frame A is provided with a special locking arrangement so that the points may be left locked in either the NORMAL or the REVERSE position to permit a train to be dispatched into the section without having to restore the points to the normal position.

#### Newell Highway Level Crossing (677.745km)

Type F flashing lights with bells is provided at Newell Highway level crossing at 677.745km.

The warning equipment is automatically controlled by axle counters for Up and Down trains on the main line.

## Turrawan to North Star Locations and Sections Information



### **3.13 Camurra West (CCW)**

#### **3.13.1 General Arrangements**

Camurra West is a Train Order Block Location which is the interface point between ARTC and CRN, location is at 679.040km on the Weemelah branch.

The End ARTC Control / Begin CRN Control sign facing towards down direction trains at 679.040km is the limit of authorities issued by the ARTC Network Controller.

The End CRN Control / Begin ARTC Control signs at 679.040km facing towards Up trains is the limit of authorities issued by the CRN Network Controller.

Refer to safety interface agreement IA3000.12

#### **Yard Limits**

A YARD LIMIT sign is located at 678.219km to indicate the Camurra yard limit in the up direction from Weemelah.

Begin/End ARTC/CRN Control signs are located at 679.040km.

#### **Shunting Limits**

There are no Shunting limits at Camurra West

#### **Down Rail Traffic**

Down trains are issued an authority by the ARTC Network Controller to the "End ARTC Control sign", trains cannot pass this point until they are in possession of an authority issued by the CRN Network Controller to continue. The authority issued by ARTC cannot be fulfilled until the whole of train has passed the End ARTC Control sign.

#### **Up Rail Traffic**

Up trains are issued an authority by the CRN Network Controller to the "End CRN Control sign", trains cannot pass this point until they are in possession of an authority issued by the ARTC Network Controller to continue. The authority issued by CRN cannot be fulfilled until the whole of train has passed the End CRN Control sign.

### 3.13.2 Country Regional Network Interface Requirements

#### Work on Track

The following instructions will apply if work on track will be conducted which:

- extends into the UGLRL controlled area, or
- requires protection to be provided by the UGLRL Network Control Officer.

Where any work on track activity within the ARTC Network requires protection from the adjacent CRN Network, the UGLRL Network Control Officer, ARTC Network Controller and the Protection Officer must establish a conference call to agree upon:

- affected rail traffic movements
- location of work
- required protection arrangements
- duration of work.

#### Local Possession Authorities (LPA)

The limits of an LPA must not extend beyond the Operational Interfaces.

#### Back-to-Back LPAs

Where back-to-back LPAs are implemented, the following instructions will apply:

- Worksites and rail traffic that need to move from CRN territory to ARTC territory are authorised and supervised by the ARTC Possession Protection Officer (PPO).
- Worksites and rail traffic that need to move from ARTC territory to CRN territory are authorised and supervised by the UGLRL PPO.

Where work is being undertaken at or over the interface boundary the following will apply:

- The UGLRL PPO and the ARTC PPO must confer and come to a clear understanding of the worksite protection to be established over the CRN and ARTC interface boundary.
- When the work at or over the interface boundary is completed, the UGLRL PPO and ARTC PPO must ensure that possession protection is removed.

#### UGLRL only LPA

Where a UGLRL only LPA is to be obtained, the UGLRL Possession Protection Officer must request from the ARTC Network Controller permission to clip and lock points to exclude rail traffic entry to the CRN for the duration of the possession.

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work

#### ARTC only LPA

Where an ARTC only LPA is to be obtained, the ARTC Possession Protection Officer must request from the ARTC Network Controller permission to clip and lock points to prevent rail traffic entry from the CRN for the duration of the possession.

Where work is being undertaken within 500m of the protecting limits, a Work on Track Authority adjoining the entry end limit must be implemented for the duration of the work

**Track Occupancy Authority (TOA)**

The UGLRL Network Control Officer is responsible for implementing a TOA when a worksite is established on the CRN up to the Operational Interfaces.

The ARTC Network Controller is responsible for implementing a TOA when a worksite is established on the ARTC Network up to the Operational Interfaces.

When a TOA worksite extends beyond an operational interface, or the worksite is located within 500m of an operational interface, separate TOA's must be issued by the UGLRL Network Control Officer and the ARTC Network Controller.

**Track Work Authorities (TWA)**

The ARTC Network Controller is responsible for implementing a TWA when a worksite is established on the ARTC Network up to the Operational Interfaces

The UGLRL Network Control Officer is responsible for implementing a TWA when a worksite is established on the CRN up to the Operational Interfaces.

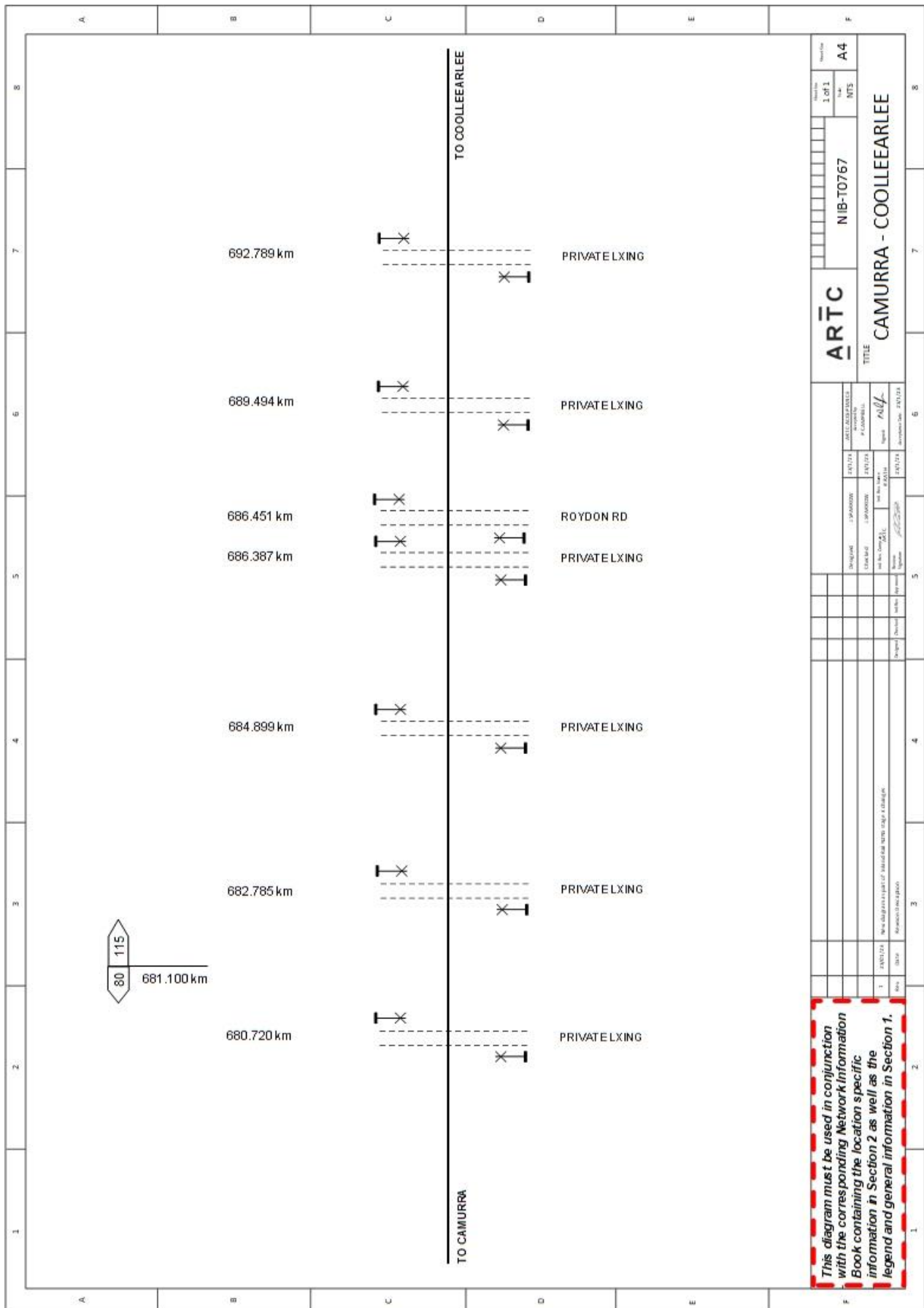
TWAs must not extend beyond the operational interfaces.

**Route Control Blocking (RCB)**

The use of RCB is not permitted in the ARTC Network.



## Turravan to North Star Locations and Sections Information





### 3.14 Coolleearlee (CLL)

#### General Arrangements

Coolleearlee is a Train Order location with a Crossing Loop and Maintenance Siding

Crossing Loop Length 1922m

Maintenance Siding Length 260m

#### Main Line Indicators (MLI)

"A" MLI is located at 697.124km for Down direction rail traffic.

"AM" MLI is located at 697.282km for Up direction rail traffic.

"CM" MLI is located at 699.207 for Down direction rail traffic.

"C" MLI is located at 699.366km for Up direction rail traffic.

#### Coloured Light Point Indicators

"AL" (loop line) is located at 697.282km

"BL" (loop line) is located at 698.967km

"BS" (maintenance siding) is located at 698.967km

"B" (loop line) is located at 699.137km

"CL" (loop line) is located at 699.207km

#### Yard Limits

A YARD LIMIT sign is located at 695.334km to indicate the Coolleearlee Yard in the Down direction.

A YARD LIMIT sign is located at 701.156km to indicate the Coolleearlee Yard in the Up Direction.

#### Shunt Limit Signs

LIMIT OF SHUNT sign is provided at 700.656km to indicate the Coolleearlee Shunting in the Down direction.

LIMIT OF SHUNT sign is provided at 695.834km to indicate the Coolleearlee Shunting in the Up direction.

#### Point Machines

"A" Points are located at 697.134km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key

"BA" Catch Points are located at 698.970km and provide access from the Maintenance siding to the Loop Line and are operated by push buttons and unlocked by Operator's Key

"BB" Points are located at 699.127km (Coolleearlee Loop) and provide access to the Maintenance Siding and are operated by push buttons and unlocked by Operator's Key

"C" Points are located at 699.356km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key

**Operation of Points, Main Line Indicators and Point Indicators**

“A”, “B” and “C” MLI / Point Indicator push button panels contain three push buttons –

- Cancel Indicators
- Points Normal
- Points Reverse

To operate the “A”, “B” and “C” MLI Point Indicator pushbuttons,

- Depress “Cancel Indicators” button for 2 seconds.
- Point free indicator will flash illuminated until points become free after (4) four minutes.
- Depress “Points Reverse” / “Points Normal” button.
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position after rail traffic has occupied and then is clear of the track circuit, the points will return to the normal position, after a time release of 45 seconds.

**Through Movements**

The MLI will normally display a pulsating white aspect and when a rail traffic occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” rail traffic to pass through Coolleearlee at permitted line speed on the main line.

**Entry into the Loop**

For movements into the loop, the rail traffic must Stop at “A” or “C” MLI

The Competent Worker must depress the “Cancel Indicators” button to place the MLI to STOP. Following a time release of (4) four minutes the points will become free to operate to the Loop. The competent worker must ensure that the “Points Free” light is displayed prior to depressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Loop.

To cancel the route into the Loop, depress “Cancel Indicators” button, which will restore the MLI to Stop, after a time release of four minutes the points will restore to the normal position. Then depressing the “Points Normal” button the MLI will clear provided the conditions are met.

**Exit from the Loop**

To exit the Loop, first depress the “Cancel Indicators” button provided in the push button panel near the point indicator. The points free indicator will flash and after a (4) four-minute time delay, depress the “Points Reverse” in the “AL” or “CL” pushbutton panel, once the points have operated to the reverse position, the Point Indicator will display a White Arrow indicating the points are set and locked for the route.

## Turrawan to North Star Locations and Sections Information

To cancel the route out of the Loop, depress Cancel Indicators, the Point Indicator will display a red light once the rail traffic has cleared the track circuit and after a time limit of four minutes. after a time release of four minutes the points will be self-restored to the normal position.

**Entry into Maintenance Siding from Loop**

The entry into the maintenance siding at Coolleearlee is only via the Loop line only in the Up direction, rail traffic must STOP at "B" point indicator. The competent worker must depress "Cancel Indicator". Following a time release of four minutes the points will become free to operate into the Maintenance siding. The competent worker must ensure the 'Points Free' light is displayed prior to depressing the "Points Reverse" button.

Once the points have operated to the reverse position the points free indication will be extinguished and the white arrow on the point indicator will be displayed indicating the points are set and locked for the route.

To cancel the route into the Maintenance siding, depress "Cancel Indicators" button the point indicator will display a red light.

After a time release of (4) four minutes the points will self-restore to normal position.

**From Maintenance Siding to Loop**

To exit from the Maintenance siding, rail traffic must STOP at "BS" Point Indicator. The Competent Worker must depress the "Cancel Indicators". Following a time release of (4) four minutes the points will become free to operate into the Loop.

The Competent Worker must ensure the "Points Free" light is displayed and prior to depressing the "Points Reverse" button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

To cancel the route to the Loop, depress "Cancel Indicators" button, the point indicator will display a red light. After a time-release of four minutes, the points will self-restore to the normal position.

**Location of Push Buttons**

- A Points Push Buttons @ 697.205km
- B Points Push Buttons @ 699.052km
- C Points Push Buttons @ 699.285km

*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.*

### 3.15 Milguy (MIY)

#### General Arrangements

Milguy is a Train Order Siding location.

Siding length is 1336m

#### Main Line Indicators (MLI)

“A” MLI is located at 706.335km for Down direction rail traffic.

“AM” MLI is located at 706.690km for Up direction rail traffic.

“AS” MLI is located at 706.690km for Up direction rail traffic from Silo Siding.

“BM” MLI is located at 708.029km for Down direction rail traffic.

“B” MLI is located at 708.115km for Up direction rail traffic.

#### Point Indicator

“BS” is located at 708.029km for Down direction rail traffic from Silo Siding

#### Yard Limits

A YARD LIMIT sign is located at 704.485km to indicate the Milguy yard limit in the Down direction.

A YARD LIMIT sign is located at 709.905km to indicate the Milguy yard limit in the Up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 709.405kmm to indicate the Milguy shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 704.985km to indicate the Milguy shunting limit in the Up direction.

#### Point Machines

“AA” Points are located at 706.611km and provide access to the Siding and are operated by push buttons and unlocked by Operator’s Key

“BB” Points are located at 708.105km and provide access to the Siding and are operated by push buttons and unlocked by Operator’s Key

#### Catch Points

“AB” Catch Points are located at 706.687km and provide access to the Main Line and are operated by push buttons and unlocked by Operator’s Key

“BA” Catch Points are located at 708.032km and provide access to the Main Line and are operated by push buttons and unlocked by Operator’s Key

#### Operation of Points, Main Line Indicators and Point Indicators

“A” and “B” MLI push button panels contain three push buttons –

- Cancel Indicators,
- Points Normal,
- Points Reverse

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To operate the “A” and “B” MLI/ BS Point Indicator pushbuttons

- insert operator’s key.
- depress indicators cancel button for 2 seconds.
- point free indicator will flash illuminated until points become free after (4) four minutes.

When a steady points free indicator is illuminated

- For Main Line depress “Points Normal” button
- For Siding depress “Points Reverse” button
- Points will operate and indicator will clear

The points are provided with a self-normalising feature. When set in the reverse position after traffic has occupied and then is clear of the track circuit, the points will return to normal position, after a delay of 45 seconds.

### Through Movements

The MLI will normally display a pulsating white aspect and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” train to pass through Milguy at permitted line speed on the main line.

### Entry into Siding

Rail traffic is to stop clear of “A” or “B” MLI

The Competent Worker must depress the “Cancel Indication” button to place the MLI’s to STOP. Following a time release of (4) four minutes, the points will become free to operate to the Siding. The Competent Worker must ensure that the “Point Free” light is displayed prior to depressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Siding.

To cancel the route into the Siding, depress the ‘Cancel Indicators’ button, which will restore the MLI to STOP. After a time release of (4) four minutes, the points will restore to the normal position. Then depressing the “Points Normal” button, the MLI will clear provided the conditions are met.

### Exit from Siding to Main Line via AS MLI

To exit the Siding via the AS MLI, depress the “Cancel Indicators” button provided in the push button panel near the MLI. The points free indicator will flash and after a four-minute time delay, depress the “Points Reverse” button in the “A” pushbutton panel. Once the points have operated to the reverse position, the MLI will display a White Pulsating light indicating the points are set and locked for the route.

To cancel the route out of the Siding, depress the “Cancel Indicators” button. The MLI will display a red light once the rail traffic has cleared the track circuit and after a time release of (4) four minutes, the points will be self-restored to the normal position, Depress “Cancel Indicators” to restore the Main Line Indicator to a Pulsating White light.

**Exit from Siding to Main Line via BS Point Indicator**

To exit the Siding via the BS Point Indicator, depress the “Cancel Indicators” button provided in the push button panel . The points free indicator will flash and after a (4) four minute time delay depress the “Points Reverse” button in the “B” pushbutton panel. Once the points have operated to the reverse position, the Points indicator will display a white arrow indicating the points are set and locked for the route.

**Location of Pushbuttons**

- A Points Remote Push Buttons (A MLI & AA PTS) @ 706.335km
- A Points Push Buttons (AM MLI & AS MLI) @ 706.690km
- B Points Push Buttons @ 708.072km

**Shunter's Pushbuttons**

Shunters pushbuttons are provided for the County Boundary Rd Level Crossing and the pushbutton panel are provided with two buttons.

- Level Crossing Start
- Level Crossing Cancel

The pushbutton panels are located either side of the level crossing.

**Active Level Crossings**

County Boundary Road at 706.550km and Crooble Road at 718.865km have booms, flashing lights and audible warning devices. Both crossings are remotely monitored from NCCN by Cerberus alarm monitoring system.

Level crossing signs for County Boundary Road:

- Down direction at 705.335km
- Up direction at 719.839km

Level crossing signs for Crooble Road:

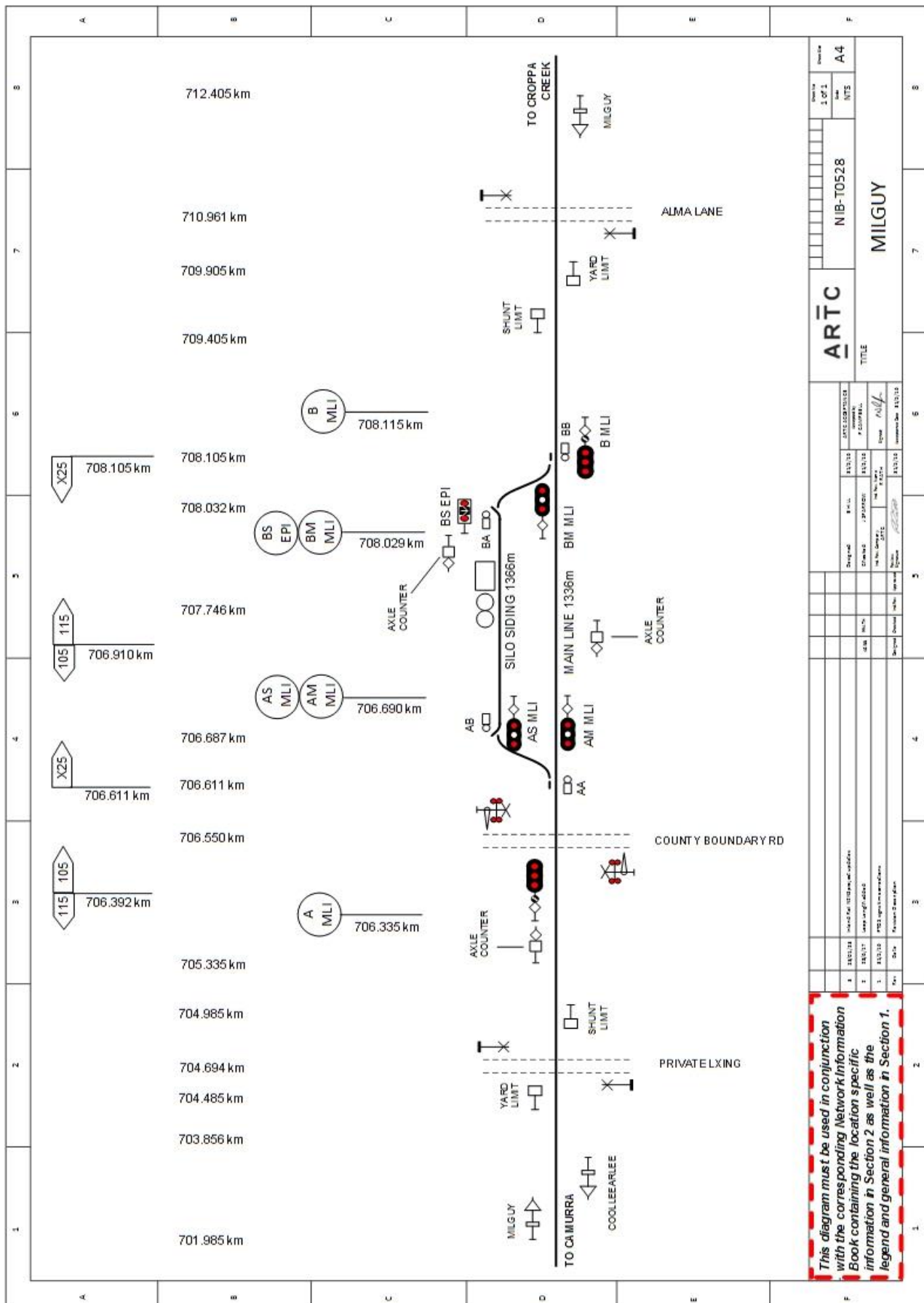
- Down direction at 717.891km
- Up direction at 707.746km (Main Line) and 708.029km (Silo Siding)

Emergency Switches for the isolation of the level crossing warning equipment are located on the Level Crossing Equipment Huts. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

Manual operation switches are provided on the outside of the Level Crossing Equipment Huts. The Protecting Type F level crossing manual operation switch is unlocked by SL key and provided for use by Competent Rail Safety Workers in accordance with ARTC Network Rule ANGE 218 “Type F Level Crossing Management”, ARTC Procedures ANPR 715 “



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### 3.16 Croppa Creek (CRP)

#### General Arrangements

Croppa Creek is a Train Order Siding location.

Siding length is 919m.

#### Main Line Indicators (MLI)

“A” MLI is located at 732.724km for Down direction rail traffic.

“AM” MLI is located at 732.836km for Up direction rail traffic.

“BS” MLI is located at 733.758km for Down direction rail traffic from Silo Siding.

“BM” MLI is located at 733.758km for Down direction rail traffic.

“B” MLI is located at 734.133km for Up direction rail traffic.

#### Coloured Light Point Indicator

“AS” is located at 732.836km for Up direction rail traffic from Silo Siding.

#### Yard Limits

A YARD LIMIT sign is located at 729.074km to indicate the Croppa Creek yard limit in the Down direction.

A YARD LIMIT sign is located at 735.501km to indicate the Croppa Creek yard limit in the Up direction.

#### Shunting Limits

A SHUNT LIMIT sign is provided at 735.001km to indicate the Croppa Creek shunting limit in the Down direction.

A SHUNT LIMIT sign is provided at 731.596km to indicate the Croppa Creek shunting limit in the Up direction.

#### Point Machines

“AA” Points are located at 732.734km and provide access to the Siding and are operated by push buttons and unlocked by Operator’s Key.

“BB” Points are located at 733.833km and provide access to the Siding and are operated by push buttons and unlocked by Operator’s Key

#### Catch Points

“AB” Catch Points are located on the Siding at 732.833km and provide access to the Main Line and are operated by push buttons and unlocked by Operator’s Key.

“BA” Catch Points are on the Siding located at 733.761km and provide access to the Main Line and are operated by push buttons and unlocked by Operator’s Key.

#### Operation of Points, Main Line Indicators and Point Indicators

“A” and “B” MLI push button panels contain three push buttons –

- Cancel Indicators
- Points Normal

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- Points Reverse

To operate the “A” and “B” MLI/ AS Point Indicator pushbuttons,

- insert operator’s key
- depress indicators cancel button for 2 seconds
- point free indicator will flash illuminated until points become free after (4) four minutes.

When a steady points free indicator is illuminated

- For Main Line depress “Points Normal” button
- For Siding depress “Points Reverse” button
- Points will operate and indicator will clear

The points are provided with a self-normalising feature. When set in the reverse position after traffic has occupied and then is clear of the track circuit, the points will return to normal position, after a delay of 45 seconds

### Through Movements

The “A” and “B” MLI’s will normally display a pulsating white aspect and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” train to pass through Croppa Creek at permitted line speed on the main line.

### Entry into Siding

Rail traffic is to stop clear of “A” or “B” MLI

The Competent Worker must depress the “Cancel Indication” button to place the MLI’s to STOP. Following a time release of (4) four minutes, the points will become free to operate to the Siding. The Competent Worker must ensure that the “Point Free” light is displayed prior to depressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Siding.

To cancel the route into the Siding, depress the ‘Cancel Indicators’ button, which will restore the MLI to STOP. After a time release of (4) four minutes, the points will restore to the normal position. Then depressing the “Points Normal” button, the MLI will clear provided the conditions are met.

### Exit from Siding to Main Line via BS MLI

To exit the Siding via the AS MLI, depress the “Cancel Indicators” button provided in the push button panel near the MLI. The points free indicator will flash and after a (4) four-minute time delay. Depress the “Points Reverse” button in the “A” pushbutton panel, once the points have operated to the reverse position, the MLI will display a White Pulsating light indicating the points are set and locked for the route.

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To cancel the route out of the Siding, depress the “Cancel Indicators” button. The MLI will display a red light once the rail traffic has cleared the track circuit and after a time release of (4) four minutes, the points will be self-restored to the normal position. Depress “Cancel Indicators” to restore the Main Line Indicator to a Pulsating White light.

**Exit from Siding to Main Line via AS Point Indicator**

To exit the Siding via the AS Point Indicator, depress the “Cancel Indicators” button provided in the push button panel. The points free indicator will flash and after a (4) four minute time delay depress the “Points Reverse” button in the “B” pushbutton panel. Once the points have operated to the reverse position, the points indicator will display a white arrow indicating the points are set and locked for the route.

**Location of Pushbuttons**

- A Points Push Buttons (A MLI & AA PTS) @ 732.780km
- B Points Push Buttons @ 733.758km
- B Points Remote Push Buttons @ 734.133km

**Shunter’s Pushbuttons**

Shunters pushbuttons are provided for the Buckie Rd and Pedestrian Level Crossing and the pushbutton panel are provided with two buttons.

- Level Crossing Start
- Level Crossing Cancel

The pushbutton panels are located either side of the level crossings.

**Active Level Crossings**

Croppa Moree Road at 730.335km and Buckie Road at 733.944km have booms, flashing lights and audible warning devices. Both crossings are remotely monitored from NCCN by Cerberus alarm monitoring system.

Level crossing signs for Croppa Moree Road:

- Down direction at 729.074km
- Up direction at 731.596km

Level crossing signs for Buckie Road:

- Down direction at 732.724km (Main line) and 732.836km (Siding)
- Up direction at 735.077km

Emergency Switches for the isolation of the level crossing warning equipment are located on the Level Crossing Equipment Huts. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

Manual operation switches are provided on the outside of the Level Crossing Equipment Huts. The Protecting Type F level crossing manual operation switch is unlocked by SL key and provided for use by Competent Rail Safety Workers in accordance with ARTC Network Rule ANGE 218 “Type F Level Crossing Management”, ARTC Procedures ANPR 715 “

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### 3.17 Murgo (MGO)

#### General Arrangements

Murgo is a Train Order Location with a Crossing Loop and Maintenance Siding

Crossing Loop Length 1922m

Maintenance Siding Length 250m

#### Main Line Indicators (MLI)

"A" MLI is located at 736.652km for Down direction rail traffic.

"AM" MLI is located at 736.811km for Up direction rail traffic.

"CM" MLI is located at 738.736km for Down direction rail traffic.

"C" MLI is located at 738.895km for Up direction rail traffic.

#### Coloured Point Indicators

"AL" (loop line) is located at 736.811km

"BL" (loop line) is located at 738.496km

"BS" (maintenance siding) is located at 738.496km

"B" (loop line) is located at 738.666km

"CL" (loop line) is located at 738.736km

#### Yard Limits

A YARD LIMIT sign is located at 735.501km to indicate the Murgo Yard Limit in the Down direction.

A YARD LIMIT sign is located at 740.735km to indicate the Murgo Yard Limit in the Up Direction.

#### Shunt Limit Signs

LIMIT OF SHUNT sign is provided at 740.185km to indicate the Murgo shunting limit in the Down direction.

LIMIT OF SHUNT sign is provided at 736.001km to indicate the Murgo shunting limit in the Up direction.

#### Point Machines

"A" Points are located at 736.662km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key.

"BB" Points are located at 738.656km (Murgo Loop) and provide access to the Maintenance Siding and are operated by push buttons and unlocked by Operator's Key.

"C" Points are located at 738.885km and provide access to the Loop and are operated by push buttons and unlocked by Operator's Key.

#### Catch Points

"BA" Catch Points are located on the Siding at 738.499km and provide access to the Main Line and are operated by push buttons and unlocked by Operator's Key.



**Operation of Points, Main Line Indicators and Point Indicators**

“A”, “AM”, “CM” and “C” MLI’s / Point Indicator push button panels contain three push buttons

- Cancel Indication
- Points Normal,
- Points Reverse

To operate the “A”, “B” and “C” MLI Point Indicator pushbuttons,

- Depress “Cancel Indication button for 2 seconds
- Point free indicator will flash illuminated until points become free after (4) four minutes
- Depress “Points Reverse” / “Points Normal”
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use. The points are provided with a self-normalising feature. When set in the reverse position after traffic has occupied and then is clear of the track circuit, the points will return to the normal position, after a delay of 45 seconds.

**Through Movements**

The MLI will normally display a pulsating white aspect and when a rail traffic occupies the approach track circuit, the MLI will continue to display a pulsating white aspect provided all other signalling conditions are satisfied.

When the pulsating white indications are displayed, this will allow a “through” rail traffic to pass through Murgo at permitted line speed on the main line.

**Entry into the Loop**

For movements into the loop, the rail traffic must Stop at “A” or “C” MLI

The Competent Worker must depress the “Cancel Indication” button to place the MLI to STOP. Following a time release of (4) four minutes points will become free to operate to the Loop.

The competent worker must ensure that the “Points Free” light is displayed and then depress the Loop button, Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Loop.

To cancel the route into the Loop, depress “Cancel Indication” button, which will restore the MLI to stop. After a time release of (4) four minutes the points will restore to the normal position. Depress the “Points Normal” button and the MLI will clear provided the conditions are met.

**Exit from the Loop**

To exit the Loop, first depress the “Cancel Indicators” button provided in the push button panel near the point indicator. The points free indicator will flash and after a (4) four-minute time delay, depress the “Points Reverse” in the “AL” or “CL” pushbutton panel. Once the points have operated to the reverse position, the Point Indicator will display a White Arrow indicating the points are set and locked for the route.

To cancel the route out of the Loop, depress Cancel Indicators button. The Point Indicator will display a red light once the rail traffic has cleared the track circuit and after a time limit of (4) four minutes, the points will be self-restored to the normal position.

**Entry into Maintenance Siding from Loop**

The entry into the maintenance siding at Murgoo is only via the Loop line and rail traffic must STOP at “B” point indicator. The competent worker must depress the “Cancel Indication” button. Following a time release of (4) four minutes, the points will become free to operate into the Maintenance siding. The competent worker must ensure the ‘Points Free’ light is displayed prior to depressing the “Points Reverse” button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the point indicator will be displayed indicating the points are set and locked for the route.

To cancel the route into the maintenance siding, depress “Cancel Indicator” button the point indicator will display a red light.

After a time release of (4) four minutes the points will self-restore to normal position.

**Exit from Maintenance Siding to Loop**

To exit from the Maintenance siding, rail traffic must STOP at “BS” Point Indicator. The Competent Worker must press the “Cancel Indication” button. Following a time release of (4) four minutes the points will become free to operate into the Loop. The Competent Worker must ensure the “Points Free” light is displayed and prior to pressing the “Points Reverse” button. Once the points have operated to the reverse position, the points free indication will be extinguished and the white arrow on the Point Indicator will be displayed, indicating the points are set and locked for the route.

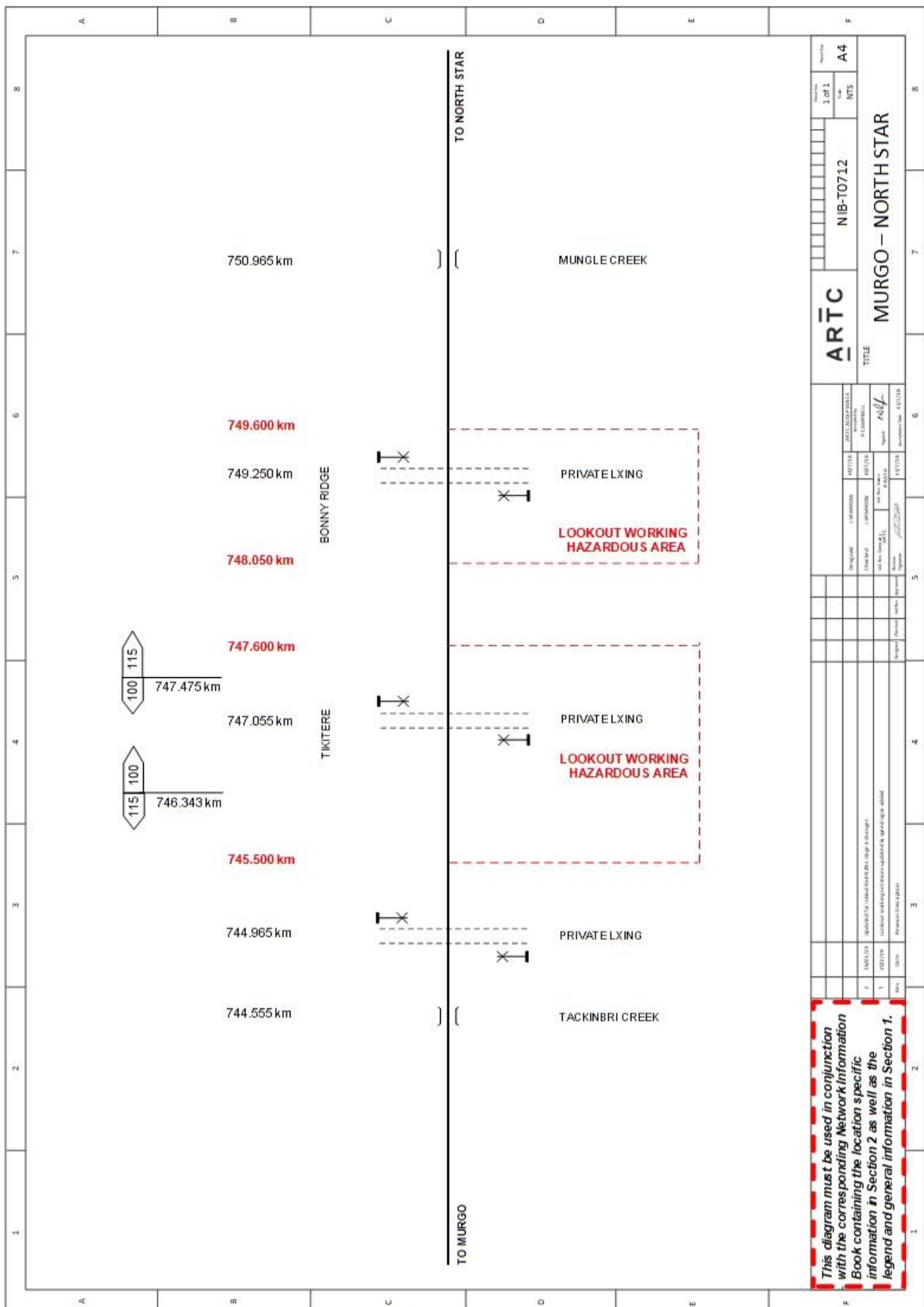
To cancel the route to the Loop, press “Cancel Indication” button, the point indicator will display a red light. After a time-release of (4) four minutes, the points will self-restore to the normal position.

**Location of Push Buttons**

- A Points Push Buttons @ 736.734km
- B Points Push Buttons @ 738.581km
- C Points Push Buttons @ 738.814km

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## Turravan to North Star Locations and Sections Information



### 3.18 North Star (NTS)

#### General Arrangements

North Star is a Train Order Location and is provided with a Silo Siding and Sleeper Siding

Silo Siding 1273m

Sleeper Siding 282m

#### Main Line Indicators (MLI)

"A" MLI is located at 758.037km for Down direction rail traffic.

"BM" MLI is located at 758.434 for Up direction rail traffic Main Line

"BS3" MLI is located at 758.434 for Up direction Silo siding to Main Line.

"BS2" MLI is located at 758.434 for Up direction Sleeper siding to Silo siding.

"CM" MLI is located at 759.710 for Down direction rail traffic Main Line

"C" MLI is located at 759.826km for Up direction rail traffic Main Line

#### Coloured Light Point Indicators

"BS1" (siding) is located at 758.374km

"CS" (siding) is located at 759.710km

#### Yard Limits

A YARD LIMIT sign is located at 754.253km to indicate the North Star Yard in the Down direction.

A YARD LIMIT sign is located at 760.500km to indicate the North Star Yard Limit in the Up direction.

#### Shunting Limits

A LIMIT OF SHUNT sign is provided at 756.903km to indicate the North Star shunting Limit in the Up direction.

A LIMIT OF SHUNT sign is provided at 760.400km to indicate the North Star shunting Limit in the Down direction.

#### Point Machines

"AA" Points are located at 758.305km and provide access to the Silo Siding and are operated by push buttons and unlocked by Operator's Key

"B" Points are located at 758.375km and provide access to the Sleeper Siding and are operated by push buttons and unlocked by Operator's Key

"CB" Points are located at 759.816km and provide access to the Silo Siding and are operated by push buttons and unlocked by Operator's key.

#### Catch Points

"AB" Catch Points are located on the Silo Siding at 758.373km and provide access to the Main Line and are operated by push buttons and unlocked by Operator's Key.

"CA" Catch Points are located on the Silo Siding at 759.713km and provide access to the Main Line and are operated by push buttons and unlocked by Operator's Key.

**Stop Block and STOP Sign**

Located on the main line at 760.500km

**Operation of Points, Main Line Indicators and Point Indicators**

"A", "BM", "BS2", "BS3", "CS", and "C" MLI push button panels contain three push buttons.

- Cancel Indicators
- Points Normal
- Points Reverse

To operate the "A", "BM", "BS2", "BS3", "CS", and "C" MLI pushbuttons

- Depress 'Cancel Indicators' button for 2 seconds.
- Points free indicator will flash until points become free after (4) four minutes.
- Depress "Points Reverse" / "Points Normal" button.
- Observe Indication on MPI / Point Indicator

All pushbutton units must be kept closed and secured by an SL lock when not in use.

The points are provided with a self-normalising feature. When set in the reverse position after traffic has occupied and then is clear of the track circuit, the points will return to normal position, after a delay of 45 seconds.

**Down Direction Rail Traffic arriving at "A" MLI**

"A" MLI will be held at STOP and rail traffic crew are to access the Remote Pushbutton Panel adjacent the MLI.

- Depress 'Cancel Indicators' button for 2 seconds.
- Points free indicator will flash until points become free after (4) four minutes.
- Depress "Points Reverse" / "Points Normal" button.
- After a time delay of (4) four minutes the I B Bore Road Level will activate
- Observe Indication on MPI / Point Indicator

**Entry into the Silo Siding**

For movements into the Silo siding, the rail traffic must Stop at "A" or "C" MLI

The Competent Worker must depress the "Cancel Indicators" button to place the MLI to STOP. Following a time release of (4) four minutes, the points will become free to operate to the Silo Siding. The competent worker must ensure that the "Points Free" light is displayed prior to depressing the Loop button.

Once the points have operated to the reverse position, the points free indication will be extinguished and the turnout indicator on the MLI will then display angled white lights to the Loop.

To cancel the movement into the Silo Siding, press "Cancel Indication" button, which will result in the angled lights being extinguished. The points will self-restore to normal once they become free. After the points have been normalised, with pressing of the "Points Normal" button the MLI will clear to a pulsating white.

**Exit from the Silo Siding**

To exit the Silo Siding, first press the "Cancel Indicator" button provided in the push button panel near the Point indicator. This will result in replacement of the CS Point indicator or BS3 MLI to Red dependent on what exit from the siding is required and after a (4) four minute time delay, will release the points. The points free indicator will flash. Press the points reverse button provided in the "B" "C" pushbutton panels, once the points have moved and are detected, the Point Indicator will then display a White Arrow allowing movement onto the main line.

To cancel the movement out of the Silo Siding, press "Cancel Indicator" button, this will result in extinguishing of the White Arrow and display of a Red aspect on the Point Indicator or MLI. The points will be self-restored to normal once they become free. Press "Cancel Indicator" at this instance to restore the main line indicator to a Pulsating White.

**Entry into Sleeper Siding from Silo Siding**

The entry into the Sleeper siding at North Star is only via the silo siding, rail traffic must be brought to stand clear of the "BS1" EPI. Press "Cancel Indicator". Following the expiry of (4) minutes, the points will become free to operate into the siding. The competent worker must ensure the 'Points Free' light is displayed and then press the "Points Reverse" button.

Once the points have completed their movement, the points free indication will be extinguished and the white arrow on the EPI will be displayed allowing movement into the siding.

To cancel the movement into the siding, depress "Cancel Indicator" button, which will result in the white arrow being extinguished. The points will self-restore to normal, after a time release of (4) minutes.

**Exit from Sleeper Siding to Silo Siding**

The exit from the Sleeper Siding, rail traffic must be brought to stand clear of the "BS2" MLI. Depress "Cancel Indicator" button. Following the expiry of (4) four minutes, the points will become free to operate into the Silo Siding. The competent worker must ensure the 'Points Free' light is displayed and then depress the "Points Reverse" button. Once the points have completed their movement, the points free indication will be extinguished and the white arrow on the MLI will be displayed allowing movement into the Silo Siding.

To cancel the movement into the Silo Siding, press "Cancel Indicator" button, which will result in the white arrow being extinguished. The points will self-restore to normal once they become free.

**Location of Push Buttons**

- A MLI & A Points Remote Pushbuttons @ 758.037km
- Shunters Pushbuttons for I B Bore Rd level crossing @ 758.237Km & 758.267km
- B Points Pushbuttons @ 758.375km
- A Points Pushbuttons @ 758.434km
- C Points Pushbuttons @ 759.768km



**Active Level Crossings**

Croppa Creek Road at 755.578km and IB Bore Road at 758.252km have booms, flashing lights and audible warning devices. Both crossings are remotely monitored from NCCN by Cerberus alarm monitoring system.

Level crossing signs for Croppa Creek Road:

- Down direction at 754.253km
- Up direction at 756.903km

Level crossing signs for I B Bore Road:

- Down direction at 757.119km
- Up direction at 758.434km (Sleeper Siding), 759.385km (Main Line) and 759.710km (Silo Siding)

Emergency Switches for the isolation of the level crossing warning equipment are located on the Level Crossing Equipment Huts. The emergency keys are held at the ARTC Provisioning Centre at Narrabri.

Manual operation switches are provided on the outside of the Level Crossing Equipment Huts. The Protecting Type F level crossing manual operation switch is unlocked by SL key and provided for use by Competent Rail Safety Workers in accordance with ARTC Network Rule ANGE 218 "Type F Level Crossing Management", ARTC Procedures ANPR 715 "

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