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Network Information Book

TOCO Board

Broken Hill to Stockinbingal (exc) and Bogan Gate to Bogan Gate North

OGW-30-01

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2.4	13 Dec 2021	1.1, 1.4, 1.7, 1.13, 2.6, 2.17	Board Extent updated. Adjacent Train Control, Communications section & Bogan Gate location Country Regional Network references updated. Level Crossings table updated. Tronox Siding details added. Darnick, Darnick – Ivanhoe, Ivanhoe, Yarrabandai – Bogan Gate, Derriwong & Milvale - Stockinbingal diagrams updated. Goobang North diagram added.
2.5	20 Jan 2022	2.17, 2.20, 2.21, 2.26	Country Regional Network information added to Bogan Gate North & Goobang Junction locations. North West Link, Goobang Junction South & Wirrinya diagrams updated.
2.6	20 Jul 2022	1.1, 1.7, 2.2, 2.4, 2.20, 2.21	Board Extent and Level Crossings table updated. Kinalung text and diagram updated. Brolgan Road West level crossing removed from Parkes North West Link location. Kaleentha & Goobang Junction diagrams updated.
2.7	19 Dec 2022	1.7, 2.12, 2.13, 2.14,2.18, 2.29	Level Crossings table, Kiacatoo, Condobolin, Derriwong, Bogan Gate and Bribbaree diagrams updated. CRN Interface Agreement numbers updated.
2.8	28 Mar 2023	2.1, 2.20, 2.24	Parkes North West Yard access via Goobang North 240 points added. Red Bend sidings extension works updated. Broken Hill diagrams updated.
2.9	7 Jul 2023	1.7, 2.1, 2.2, 2.3, 2.4, 2.5, 2.8, 2.10, 2.11, 2.13, 2.16, 2.24	Level Crossings table updated. Field telephone references removed from Kinalung, Menindee, Kaleentha, Darnick, Trida, Matakana, Euabalong West, Condobolin & Yarrabandai locations. Red Bend location updated. Broken Hill, Euabalong West & North West Link diagrams updated.
3.0	28 Feb 2024	1.5.4, 2.1, 2.2, 2.23	Section 1.5.4 ICAPS added. Forbes location and diagram updated. Broken Hill 1 and Kinalung – Menindee diagrams updated

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1 Introduction

1.1 Board Extent

Broken Hill inclusive signal BH5 for eastbound services and exclusive signal 56 for westbound services.

North West Link inclusive signal BNW (449.640km)

Goobang Junction signals GJ154 (451.927km), GJ127 (446.950km) & GJ120 (627.500km).

Stockinbingal exclusive signal SL22 (455.073km)

Bogan Gate to Bogan Gate North (486.050km)

This area is controlled by the TOCO Network Controller, Network Control Centre South (NCCS).

Contact Numbers:

Phone:	(02) 6924 9801
Train Transit Manager:	(02) 6930 5311
Emergency Contact:	(02) 6924 9861

NOTE: For work between Broken Hill signals BH5 and 56 ensure both NCCW ABS Broken Hill and NCCS TOCO network controllers are contacted.

1.2 Safeworking System

New South Wales train orders. Train order system of safeworking using the Train Management and Control System (TMACS).

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 ABS Broken Hill	(08) 8152 8008	Emergency	(08) 8152 8068
ARTC Hunter West	(02) 4902 7916	Emergency	(02) 4902 7976
ARTC Main South B	(02) 6924 9808	Emergency	(02) 6924 9868
Country Regional Network (CRN)			(02) 4028 9504

1.5 Section Operating Equipment

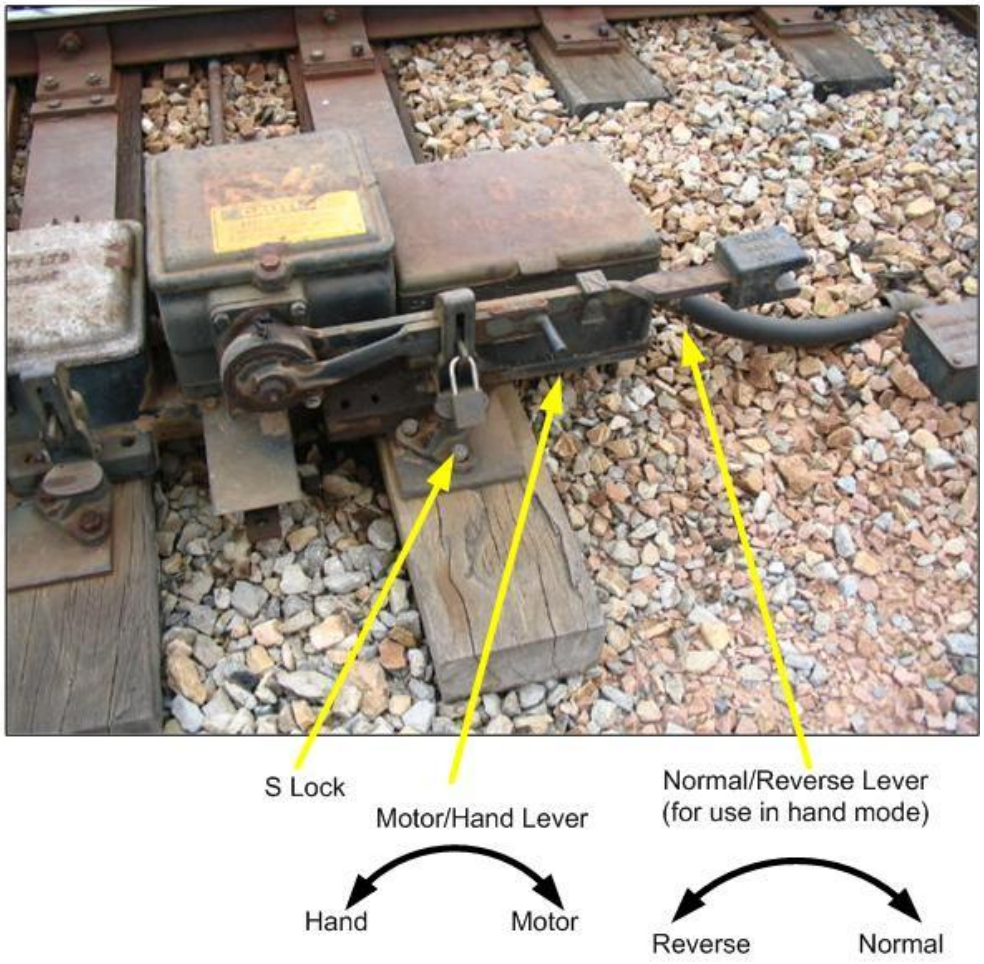
1.5.1 How to Take Local Control

All interlocked points are operated from ground frames.

Information relating to ground frame operation in locations can be found in the Locations and Sections Information area of this book.

1.5.2 Motorised Point Machines & Ground Frames

McKenzie & Holland Dual Control Points Machine




DUPLEX LOCK B


SHUNTERS
PUSH BUTTON
XMLI


1
MAIN
TO
LOOP


2
LOOP
TO
GOODS
SIDING

1.5.3 Main Line Indicator and Trailing Points Indicator Push Button Units

1.5.4 In Cab Activated Points System (ICAPS)

Some locations in Train Order territory use In Cab Activated Points System (ICAPS) to set a route.

These locations are: -

Stockinbingal to Goobang Junction section

Milvale

Quandialla

Wirrinya

Goobang Junction to Broken Hill section

Yarrabandai

Kiacatoo

Matakana

Ivanhoe

Kaleentha

Kinalung

ICAPS allows the rail traffic crew to operate the motorised points remotely from the locomotive as the movement approaches a crossing loop location.

To allow remote operation of the points, the locomotive must be equipped with ICAPS control equipment. This equipment transmits a designated command to the infrastructure equipment located on the ground that allows the points to be set for the crossing loop.

NOTE: There is no requirement to operate the ICAPS equipment, to set the route for the main line.

Refer to Network Procedure ANPR 749 In Cab Activated Points System for further details.

1.6 Train Braking Requirements

Brake Holding Tests for the Rearmost Vehicles (retention tests)

The following apply:

1. The operator **shall** put into place systems for conducting brake holding tests.
2. The number of vehicles (or for articulated or permanently coupled vehicles the number of triple valve control units) required to conform to the requirements of this sub-section shall be:
   a. Three (3) for freight trains operated in New South Wales;
   b. Two (2) for freight trains not entering New South Wales; and
   c. One (1) for all passenger trains where a guard is provided or three (3) for passenger trains without guards.
3. The vehicle operator shall ensure that air and hand brakes operate correctly.
4. The air brakes on the vehicles **shall** remain effectively applied for a period of time, based on train length, considered sufficient for a member of the train (locomotive) crew to reach the vehicles and secure handbrakes in the event of a breakaway en route.
5. This time **shall** be ten (10) minutes plus three (3) minutes for each 100 metres or part thereof of train length. For example, a train 1240 metres long will require a holding (retention) time of 13 x 3 + 10 = 49 minutes.
6. If any of the required number of vehicles (as specified in item (2) above) fail the above test (as specified in item (5) above), generally known as a holding or retention test, the faulty vehicle(s) **shall** be repaired or the train remarshalled to ensure compliance with the requirements of items (3) and (4) above.
7. Brake holding tests successfully completed will remain valid for the departure within a period of 24 hours from completion of the test. After that period, the vehicles **shall** be re-tested.

Freight Trains

On freight trains, the maximum number of inoperative or isolated brakes permitted on a train **shall** be either of the following:

1. One conventional two-bogie vehicle for every ten (10) vehicles in the train where the vehicle is isolated as a unit.
2. One bogie for every ten (10) bogies in the train where individual bogies can be isolated or the isolation of triple valve control units affects more than two (2) bogies. This applies, only on the proviso that the total un-braked mass of the train **shall not** exceed 10% of the total train mass (excluding the mass of the hauling locomotives).

Item (1) above applies where the only vehicles isolated are conventional two-bogie vehicles. In all other cases, the requirements of item (2) **shall** be followed.

For the purposes of this clause, a four-wheel (two-axle) vehicle **shall** be counted as one bogie, and locomotives under power **shall not** be counted as train vehicles.

1.7 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).

Broken Hill to Goobang Junction including Bogan Gate

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1074	Broken Hill Yard	Goobang Junction - Broken Hill	1,124.61	Road	Public	Stop Signs
1073	Iodide Street Broken Hill	Goobang Junction - Broken Hill	1,124.25	Road	Public	Half Boom Flashing Lights
1072	Eyre Street Broken Hill	Goobang Junction - Broken Hill	1,123.25	Road	Public	Primary Flashing Lights
1071	Menindee Road Broken Hill	Goobang Junction - Broken Hill	1,119.22	Road	Public	Primary Flashing Lights
1070	Public Road	Goobang Junction - Broken Hill	1,117.21	Road	Public	Stop Signs
1069	Public Road	Goobang Junction - Broken Hill	1,113.30	Road	Public	Stop Signs
3860	Broken Hill Lxing	Goobang Junction - Broken Hill	1,110.97	Road	Private	
1068	Public Road	Goobang Junction - Broken Hill	1,108.50	Road	Public	Stop Signs
1865	Public Road	Goobang Junction - Broken Hill	1,104.90	Road	Public	Stop Signs
1067	Public Road	Goobang Junction - Broken Hill	1,100.07	Road	Public	Stop Signs
1066	Public Road / Avondale	Goobang Junction - Broken Hill	1,097.29	Road	Public	Stop Signs
3859	Kinalung Lxing	Goobang Junction - Broken Hill	1,089.49	Road	Private	
3858	Kinalung Lxing	Goobang Junction - Broken Hill	1,085.00	Road	Private	
3857	Kinalung Lxing	Goobang Junction - Broken Hill	1,081.54	Road	Private	
1065	Public Road	Goobang Junction - Broken Hill	1,077.19	Road	Public	Stop Signs
3856	Kinalung Lxing	Goobang Junction - Broken Hill	1,075.87	Road	Private	
3855	Kinalung Lxing	Goobang Junction - Broken Hill	1,072.38	Road	Private	
3854	Kinalung Lxing	Goobang Junction -	1,068.85	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
		Broken Hill				
3853	Kinalung_Private Rd Unsig_Lxing	Goobang Junction - Broken Hill	1,063.74	Road	Private	
3852	Private Unsignalled Level Crossing	Goobang Junction - Broken Hill	1,062.70	Road	Private	
3851	Kinalung Lxing	Goobang Junction - Broken Hill	1,061.68	Road	Private	
3850	Kinalung Lxing	Goobang Junction - Broken Hill	1,053.78	Road	Private	
3849	Kinalung Lxing	Goobang Junction - Broken Hill	1,051.38	Road	Private	
1063	Public Road	Goobang Junction - Broken Hill	1,038.42	Road	Public	Stop Signs
1062	Wirryilka Road	Goobang Junction - Broken Hill	1,035.17	Road	Public	Stop Signs
1061	Menindee - Broken Hill Road	Goobang Junction - Broken Hill	1,024.27	Road	Public	Primary Flashing Lights
3848	Menindee Lxing	Goobang Junction - Broken Hill	1,019.17	Road	Private	
1060	Caravan Park Road	Goobang Junction - Broken Hill	1,011.19	Road	Public	Stop Signs
1059	Broken Hill Road	Goobang Junction - Broken Hill	1,009.12	Road	Public	Primary Flashing Lights
1058	Racecourse Road Menindee	Goobang Junction - Broken Hill	1,006.91	Road	Public	Half Boom Flashing Lights
1057	Curranyale Road	Goobang Junction - Broken Hill	1,004.67	Road	Public	Stop Signs
3847	Menindee Lxing	Goobang Junction - Broken Hill	1,000.30	Road	Private	
1056	Public Road	Goobang Junction - Broken Hill	994.816	Road	Public	Stop Signs
1055	Ivanhoe - Menindee Road	Goobang Junction - Broken Hill	987.696	Road	Public	Stop Signs
3846	Menindee Lxing	Goobang Junction - Broken Hill	986.875	Road	Private	
3845	Menindee Lxing	Goobang Junction - Broken Hill	978.36	Road	Private	
3844	Kaleentha Lxing	Goobang Junction - Broken Hill	974.096	Road	Private	
3843	Kaleentha Lxing	Goobang Junction - Broken Hill	969.322	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3842	Kaleentha Lxing	Goobang Junction - Broken Hill	958	Road	Private	
1054	Public Road	Goobang Junction - Broken Hill	951.645	Road	Public	Stop Signs
3841	Kaleentha Lxing	Goobang Junction - Broken Hill	941.788	Road	Private	
1053	Public - Gum Lake	Goobang Junction - Broken Hill	927.505	Road	Public	Stop Signs
1052	Pooncarrie Road	Goobang Junction - Broken Hill	917.41	Road	Public	Stop Signs
3840	Kaleentha Lxing	Goobang Junction - Broken Hill	914.73	Road	Private	
1051	Public Road	Goobang Junction - Broken Hill	909.702	Road	Public	Stop Signs
1050	Public Road	Goobang Junction - Broken Hill	899.828	Road	Private	Stop Signs
3838	Darnick Lxing	Goobang Junction - Broken Hill	892.079	Road	Private	
3837	Darnick Lxing	Goobang Junction - Broken Hill	887.95	Road	Private	
1049	Public Road	Goobang Junction - Broken Hill	882.625	Road	Public	Stop Signs
1048	Pooncarie Road	Goobang Junction - Broken Hill	880.728	Road	Public	Half Boom Flashing Lights
3836	Darnick Lxing	Goobang Junction - Broken Hill	875.966	Road	Private	
3835	Darnick Lxing	Goobang Junction - Broken Hill	870.112	Road	Private	
1047	Public Road	Goobang Junction - Broken Hill	866.813	Road	Public	Stop Signs
1046	Public Road	Goobang Junction - Broken Hill	864.157	Road	Public	Stop Signs
1045	Public Road	Goobang Junction - Broken Hill	858.786	Road	Public	Stop Signs
3834	Oricar Lxing	Goobang Junction - Broken Hill	850.8	Road	Private	
3833	Oricar Lxing	Goobang Junction - Broken Hill	846.25	Road	Private	
3832	Oricar Lxing	Goobang Junction - Broken Hill	844.3	Road	Private	
1044	Belle Englise Station	Goobang Junction -	842.6	Road	Private	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
		Broken Hill				
3830	Oricar Lxing	Goobang Junction - Broken Hill	841.1	Road	Private	
3829	Ivanhoe Lxing	Goobang Junction - Broken Hill	838.886	Road	Private	
3828	Ivanhoe Lxing	Goobang Junction - Broken Hill	836.7	Road	Private	
3827	Ivanhoe Lxing	Goobang Junction - Broken Hill	835.02	Road	Private	
3826	Ivanhoe Lxing	Goobang Junction - Broken Hill	834.807	Road	Private	
3825	Ivanhoe Lxing	Goobang Junction - Broken Hill	829.400	Road	Private	
1043	Public Road	Goobang Junction - Broken Hill	827.505	Road	Public	Stop Signs
1042	Woolahara Station	Goobang Junction - Broken Hill	824.65	Road	Private	Stop Signs
1041	Balranald Road	Goobang Junction - Broken Hill	818.935	Road	Public	Primary Flashing Lights
1040	Cobb Highway	Goobang Junction - Broken Hill	816.098	Road	Public	Primary Flashing Lights
3823	Ivanhoe Lxing	Goobang Junction - Broken Hill	811.247	Road	Private	
3822	Ivanhoe Lxing	Goobang Junction - Broken Hill	806.402	Road	Private	
3821	Ivanhoe Lxing	Goobang Junction - Broken Hill	804.224	Road	Public	
3820	Ivanhoe Lxing	Goobang Junction - Broken Hill	802.338	Road	Private	
3819	Ivanhoe Lxing	Goobang Junction - Broken Hill	796.806	Road	Private	
1039	Oxford Station	Goobang Junction - Broken Hill	793.107	Road	Private	Stop Signs
3817	Ivanhoe Lxing	Goobang Junction - Broken Hill	791.073	Road	Private	
3816	Ivanhoe Lxing	Goobang Junction - Broken Hill	787.62	Road	Private	
1038	Public Road	Goobang Junction - Broken Hill	786.118	Road	Private	Stop Signs
3814	Ivanhoe Lxing	Goobang Junction - Broken Hill	783.314	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1037	Holey Bore Well Road	Goobang Junction - Broken Hill	781.316	Road	Private	Stop Signs
3812	Trida_Private Rd Unsig_Lxing	Goobang Junction - Broken Hill	779.003	Road	Private	
3811	Trida Lxing	Goobang Junction - Broken Hill	773.752	Road	Private	
3810	Trida Lxing	Goobang Junction - Broken Hill	766.651	Road	Private	
3809	Trida Lxing	Goobang Junction - Broken Hill	764.941	Road	Private	
1035	Public Road	Goobang Junction - Broken Hill	759.52	Road	Public	Stop Signs
3808	Trida Lxing	Goobang Junction - Broken Hill	756.291	Road	Private	
1034	Willandra Street	Goobang Junction - Broken Hill	749.39	Road	Public	Half Boom Flashing Lights
3807	Trida Lxing	Goobang Junction - Broken Hill	738.01	Road	Private	
3806	Trida Lxing	Goobang Junction - Broken Hill	731.346	Road	Private	
1033	Weelwah Road	Goobang Junction - Broken Hill	726.216	Road	Private	Stop Signs
1032	Hillston - Ivanhoe Road	Goobang Junction - Broken Hill	721.59	Road	Public	Stop Signs
3804	Roto Lxing	Goobang Junction - Broken Hill	716.974	Road	Private	
3803	Roto Lxing	Goobang Junction - Broken Hill	712.118	Road	Private	
1031	Hillston - Cobar Road	Goobang Junction - Broken Hill	707.235	Road	Public	Stop Signs
3802	Roto Lxing	Goobang Junction - Broken Hill	702.45	Road	Private	
3801	Roto Lxing	Goobang Junction - Broken Hill	696.339	Road	Private	
3800	Roto Lxing	Goobang Junction - Broken Hill	691.1	Road	Private	
3799	Roto Lxing	Goobang Junction - Broken Hill	688.799	Road	Private	
3798	Matakana Lxing	Goobang Junction - Broken Hill	686.071	Road	Private	
3797	Matakana Lxing	Goobang Junction -	682.551	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
		Broken Hill				
1030	Private Road	Goobang Junction - Broken Hill	677.75	Road	Private	Stop Signs
3795	Matakana Lxing	Goobang Junction - Broken Hill	675.51	Road	Private	
3794	Matakana Lxing	Goobang Junction - Broken Hill	671.314	Road	Private	
1864	Mt Hope Road	Goobang Junction - Broken Hill	667.375	Road	Public	Stop Signs
1029	Kidman Way	Goobang Junction - Broken Hill	665.81	Road	Public	Half Boom Flashing Lights
3793	Matakana Lxing	Goobang Junction - Broken Hill	656.985	Road	Private	
3792	Matakana Lxing	Goobang Junction - Broken Hill	652.98	Road	Private	
3791	Matakana Lxing	Goobang Junction - Broken Hill	647.474	Road	Private	
3790	Euabalong West Lxing	Goobang Junction - Broken Hill	642	Road	Private	
1028	Round Hill Road Euabalong West	Goobang Junction - Broken Hill	635.93	Road	Public	Stop Signs
3789	Euabalong West Lxing	Goobang Junction - Broken Hill	632.62	Road	Private	
3788	Euabalong West Lxing	Goobang Junction - Broken Hill	627.53	Road	Private	
3787	Euabalong West Lxing	Goobang Junction - Broken Hill	622.8	Road	Private	
1027	Tipping Way (Mt Hope Rd) Euabalong West	Goobang Junction - Broken Hill	619.439	Road	Public	Primary Flashing Lights
1026	MR22	Goobang Junction - Broken Hill	618.229	Road	Public	Stop Signs
3786	Euabalong West Lxing	Goobang Junction - Broken Hill	615.896	Road	Private	
3785	Mt Tallebong Rd	Goobang Junction - Broken Hill	613.623	Road	Private	
3784	Euabalong West Lxing	Goobang Junction - Broken Hill	611.913	Road	Private	
3783	Euabalong West Lxing	Goobang Junction - Broken Hill	610.263	Road	Private	
1025	Public Road	Goobang Junction - Broken Hill	608.694	Road	Public	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3782	Gunebang Lxing	Goobang Junction - Broken Hill	603.474	Road	Private	
3781	Gunebang Lxing	Goobang Junction - Broken Hill	598.763	Road	Private	
1024	Public Road	Goobang Junction - Broken Hill	595.518	Road	Public	Stop Signs
3780	Gunebang Lxing	Goobang Junction - Broken Hill	594.351	Road	Private	
1023	Public Road	Goobang Junction - Broken Hill	591.353	Road	Public	Stop Signs
3779	Gunebang Lxing	Goobang Junction - Broken Hill	590.287	Road	Private	
1022	Public Road / Kalinga	Goobang Junction - Broken Hill	589.201	Road	Public	Stop Signs
3778	Gunebang Lxing	Goobang Junction - Broken Hill	587.612	Road	Private	
3777	Kiacatoo Lxing	Goobang Junction - Broken Hill	584.338	Road	Private	
3776	Kiacatoo Lxing	Goobang Junction - Broken Hill	583.454	Road	Private	
3775	Kiacatoo Lxing	Goobang Junction - Broken Hill	582.66	Road	Private	
3774	Kiacatoo Lxing	Goobang Junction - Broken Hill	581.174	Road	Private	
3773	Kiacatoo Lxing	Goobang Junction - Broken Hill	579.203	Road	Private	
1021	Kiargathur Rd Kiacatoo	Goobang Junction - Broken Hill	578.760	Road	Public	Stop Signs
3772	Kiacatoo Lxing	Goobang Junction - Broken Hill	576.547	Road	Private	
1020	Public - CLOSED	Goobang Junction - Broken Hill	575.884	Road	Public	Stop Signs
3771	Kiacatoo_Private Unsig_Lxing	Goobang Junction - Broken Hill	575.824	Road	Private	
3770	Kiacatoo Lxing	Goobang Junction - Broken Hill	573.53	Road	Private	
3769	Kiacatoo Lxing	Goobang Junction - Broken Hill	572.162	Road	Private	
1863	Crown Road	Goobang Junction - Broken Hill	571.181	Road	Public	Stop Signs
3768	Kiacatoo Lxing	Goobang Junction -	569.507	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
		Broken Hill				
3767	Kiacatoo_Public Rd Unsig_Lxing	Goobang Junction - Broken Hill	567.998	Road	Private	
3766	Kiacatoo Lxing	Goobang Junction - Broken Hill	565.865	Road	Private	
1018	Mowabla Rd Kiacatoo	Goobang Junction - Broken Hill	565.061	Road	Public	Stop Signs
3765	Kiacatoo Lxing	Goobang Junction - Broken Hill	562.305	Road	Private	
3764	Condobolin Lxing	Goobang Junction - Broken Hill	560.716	Road	Private	
1017	Glenlee Rd Kiacatoo	Goobang Junction - Broken Hill	559.931	Road	Public	Stop Signs
1016	Public Road	Goobang Junction - Broken Hill	555.445	Road	Public	Stop Signs
3763	Condobolin Lxing	Goobang Junction - Broken Hill	554.922	Road	Private	
1015	Kiacatoo Rd Condobolin	Goobang Junction - Broken Hill	552.608	Road	Public	Stop Signs
1014	Public Road / Condoblin Bulk Head	Goobang Junction - Broken Hill	549.088	Road	Public	Stop Signs
1013	Melrose Road Condobolin	Goobang Junction - Broken Hill	548.243	Road	Public	Primary Flashing Lights
1012	May Street Condobolin	Goobang Junction - Broken Hill	545.28	Road	Public	Stop Signs
3762	Condobolin Lxing	Goobang Junction - Broken Hill	545.137	Road	Private	
1011	Maitland St Condobolin	Goobang Junction - Broken Hill	544.523	Road	Public	Stop Signs
1010	Airport Lane Condobolin	Goobang Junction - Broken Hill	542.869	Road	Public	Stop Signs
1009	Fifield Road	Goobang Junction - Broken Hill	540.311	Road	Public	Primary Flashing Lights
3761	Derriwong Lxing	Goobang Junction - Broken Hill	536.103	Road	Private	
1008	Public Road	Goobang Junction - Broken Hill	533.49	Road	Public	Stop Signs
1007	Private Road	Goobang Junction - Broken Hill	530.85	Road	Private	Stop Signs
1006	Derriwong Road Derriwong	Goobang Junction - Broken Hill	528.370	Road	Public	Half Boom Flashing Lights

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1005	Public Road	Goobang Junction - Broken Hill	526.607	Road	Public	Stop Signs
1004	Timmins Lane	Goobang Junction - Broken Hill	524.520	Road	Public	Stop Signs
3759	Ootha Lxing	Goobang Junction - Broken Hill	522.386	Road	Private	
3758	Ootha Lxing	Goobang Junction - Broken Hill	519.881	Road	Private	
1003	Ringwood Road	Goobang Junction - Broken Hill	517.869	Road	Public	Stop Signs
1002	Public Road	Goobang Junction - Broken Hill	513.655	Road	Public	Stop Signs
3757	Ootha Lxing	Goobang Junction - Broken Hill	511.782	Road	Private	
3756	Yarrabandai Lxing	Goobang Junction - Broken Hill	509.024	Road	Private	
3755	Yarrabandai Lxing	Goobang Junction - Broken Hill	507.476	Road	Private	
1001	Burrawang Road Yarrabandai	Goobang Junction - Broken Hill	504.421	Road	Public	Half Boom Flashing Lights
3754	Yarrabandai Lxing	Goobang Junction - Broken Hill	499.171	Road	Private	
3753	Yarrabandai Lxing	Goobang Junction - Broken Hill	497.73	Road	Private	
1000	Overland Road	Goobang Junction - Broken Hill	494.411	Road	Public	Stop Signs
3752	Bogan Gate Lxing	Goobang Junction - Broken Hill	493.095	Road	Private	
3751	Bogan Gate Lxing	Goobang Junction - Broken Hill	491.831	Road	Private	
999	Private Road	Goobang Junction - Broken Hill	490.462	Road	Private	Stop Signs
998	Leafy Tank Road Bogan Gate	Goobang Junction - Broken Hill	486.952	Road	Public	Stop Signs
3749	Bogan Gate Lxing	Goobang Junction - Broken Hill	486.295	Road	Private	
3748	Bogan Gate Lxing	Goobang Junction - Broken Hill	484.512	Road	Private	
997	Bedgerebong Road Bogan Gate	Goobang Junction - Broken Hill	483.330	Road	Public	Primary Flashing Lights
995	Cemetery Road	Goobang Junction -	481.755	Road	Public	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
	Bogan Gate	Broken Hill				
994	Public Road	Goobang Junction - Broken Hill	479.223	Road	Public	Stop Signs
993	Stock Route (Public Road)	Goobang Junction - Broken Hill	474.732	Road	Public	Stop Signs
946	Forbes Road (Bogan Road)	Goobang Junction - Broken Hill	472.909	Road	Public	Primary Flashing Lights
3747	Gunningbland Lxing	Goobang Junction - Broken Hill	471.112	Road	Private	
992	Wongalea Road	Goobang Junction - Broken Hill	470.378	Road	Public	Stop Signs
991	Wongalea Road	Goobang Junction - Broken Hill	469.29	Road	Public	Half Boom Flashing Lights
3746	Gunningbland Lxing	Goobang Junction - Broken Hill	467.12	Road	Private	
3745	Gunningbland Lxing	Goobang Junction - Broken Hill	464.808	Road	Private	
3744	Gunningbland Lxing	Goobang Junction - Broken Hill	463.878	Road	Private	
990	Public Road	Goobang Junction - Broken Hill	462.529	Road	Public	Stop Signs
3743	Gunningbland Lxing	Goobang Junction - Broken Hill	461.124	Road	Private	
989	Davies Lane	Goobang Junction - Broken Hill	459.613	Road	Public	Stop Signs
988	Brolgan Road	Goobang Junction - Broken Hill	458.334	Road	Public	Stop Signs
987	Keiths Lane	Goobang Junction - Broken Hill	456.677	Road	Public	Stop Signs
3742	Goobang Jct Lxing	Goobang Junction - Broken Hill	454.348	Road	Private	
986	Coopers Road	Goobang Junction - Broken Hill	453.484	Road	Public	Stop Signs
4434	Coopers Road	East Fork	453.545	Road	Public	Half Boom Flashing Lights
985	Stock Route (Public Road)	Goobang Junction - Broken Hill	449.57	Road	Public	Position Markers Only
984	Blaxland Street	Goobang Junction - Broken Hill	447.14	Road	Public	Half Boom Flashing Lights

Goobang Junction to Stockinbingal

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1167	Saleyards Road / Gas Works Parkes	Stockinbingal - Parkes	627.423	Road	Public	Stop Signs
1166	Newell Highway Welcome	Stockinbingal - Parkes	624.908	Road	Public	Half Boom Flashing Lights
1165	Coulston's / Parkesborough Road Tichborne	Stockinbingal - Parkes	623.460	Road	Public	Stop Signs
3899	Tichborne Lxing	Stockinbingal - Parkes	618.750	Road	Private	
1164	Newell Highway Tichborne	Stockinbingal - Parkes	617.767	Road	Public	Half Boom Flashing Lights
3898	Tichborne Lxing	Stockinbingal - Parkes	615.541	Road	Private	
3897	Tichborne Lxing	Stockinbingal - Parkes	612.830	Road	Private	
1163	Daroobalgie Lxing Forbes	Stockinbingal - Parkes	604.631	Road	Public	Stop Signs
3896	Forbes Lxing	Stockinbingal - Parkes	601.312	Road	Private	
1162	Abattoir Road - CLOSED -	Stockinbingal - Parkes	599.943	Road	Public	Stop Signs
1161	Newell Highway (MR17) / Dowling Street Forbes	Stockinbingal - Parkes	597.147	Road	Public	Primary Flashing Lights (duplicated)
1160	Herbert Street Forbes	Stockinbingal - Parkes	596.490	Road	Public	Stop Signs
1159	Bridge Street / Escort Way Forbes	Stockinbingal - Parkes	595.915	Road	Public	Primary Flashing Lights
1158	Bathurst Street Forbes	Stockinbingal - Parkes	595.163	Road	Public	Primary Flashing Lights
1157	Warrendine Lane Red Bend	Stockinbingal - Parkes	594.455	Road	Public	Stop Signs
1156	Cowra / Grenfell Road Red Bend	Stockinbingal - Parkes	594.130	Road	Public	Primary Flashing Lights
1155	Wongajong Road Red Bend	Stockinbingal - Parkes	592.670	Road	Public	Stop Signs
3895	Red Bend Lxing	Stockinbingal - Parkes	590.675	Road	Private	
3894	Grawlin Plains Lxing	Stockinbingal - Parkes	589.110	Road	Private	

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3893	Grawlin Plains Lxing	Stockinbingal - Parkes	588.540	Road	Private	
1154	Grawlin Plains Lxing	Stockinbingal - Parkes	587.370	Road	Public	Stop Signs
3892	Grawlin Plains Lxing	Stockinbingal - Parkes	586.512	Road	Private	
3891	Grawlin Plains Lxing	Stockinbingal - Parkes	585.275	Road	Private	
1153	Rainville Road Grawlin Plains	Stockinbingal - Parkes	583.005	Road	Public	Stop Signs
3890	Grawling Plains Lxing	Stockinbingal - Parkes	581.175	Road	Private	
1152	Public Road Garema	Stockinbingal - Parkes	579.565	Road	Public	Stop Signs
1151	McPhies Road Garema	Stockinbingal - Parkes	577.120	Road	Public	Stop Signs
1150	Garema (Nth End)	Stockinbingal - Parkes	574.650	Road	Public	Stop Signs
1149	Pinnacle Road (Sth End) Garema	Stockinbingal - Parkes	573.610	Road	Public	Primary Flashing Lights (duplicated)
1148	Old Wirrinya Road Garema	Stockinbingal - Parkes	572.846	Road	Public	Stop Signs
1147	Narrawong - Garema Road Back Creek	Stockinbingal - Parkes	569.381	Road	Public	Stop Signs
1146	Back Creek Road	Stockinbingal - Parkes	566.639	Road	Public	Stop Signs
1145	Public (appears to be private L/X)	Stockinbingal - Parkes	562.068	Road	Public	Stop Signs
1144	Public Road Back Creek	Stockinbingal - Parkes	560.729	Road	Private	Stop Signs
3888	Wirrinya Lxing	Stockinbingal - Parkes	557.038	Road	Private	
1143	Marsden Road Wirrinya	Stockinbingal - Parkes	555.526	Road	Public	Half Booms Flashing Lights
1142	off Woodgates Road Wirrinya	Stockinbingal - Parkes	553.301	Road	Public	Stop Signs
3887	Wirrinya Lxing	Stockinbingal - Parkes	552.228	Road	Private	
1141	Woodgates Road Wirrinya	Stockinbingal - Parkes	550.287	Road	Public	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
1140	Sandy Creek Road Wirrinya	Stockinbingal - Parkes	546.210	Road	Public	Stop Signs
3886	Private Lxing Caragabal	Stockinbingal - Parkes	544.957	Road	Private	
3885	Illoura Private Lxing Caragabal	Stockinbingal - Parkes	543.125	Road	Private	
3884	Private Lxing Caragabal	Stockinbingal - Parkes	541.305	Road	Private	
3883	Pollocks Private Lxing Caragabal	Stockinbingal - Parkes	539.781	Road	Private	
1139	Caragabal North	Stockinbingal - Parkes	536.641	Road	Public	Stop Signs
1138	Mid Western Highway Caragabal	Stockinbingal - Parkes	535.181	Road	Public	Primary Flashing Lights
3882	Private Lxing Caragabal	Stockinbingal - Parkes	533.533	Road	Private	
1869	Public Road Caragabal	Stockinbingal - Parkes	532.566	Road	Public	Stop Signs
3881	Private Rd Unsig Lxing Caragabal	Stockinbingal - Parkes	528.319	Road	Private	
1137	Farmers Outlet Caragabal	Stockinbingal - Parkes	527.187	Road	Private	Position Markers Only
1136	Berendebba Road	Stockinbingal - Parkes	524.223	Road	Public	Stop Signs
3879	Talbots Private Lxing Berendebba	Stockinbingal - Parkes	521.147	Road	Private	
3878	Leahry Private Lxing Berendebba	Stockinbingal - Parkes	520.061	Road	Private	
1135	Caragabal Road Quandialla	Stockinbingal - Parkes	518.650	Road	Public	Stop Signs
1134	Water Supply Road Quandialla	Stockinbingal - Parkes	516.372	Road	Public	Stop Signs
1133	Wyalong Road Quandialla	Stockinbingal - Parkes	515.377	Road	Public	Primary Flashing Lights
3877	Private Lxing Quandialla	Stockinbingal - Parkes	513.680	Road	Private	
3876	Private Lxing Quandialla	Stockinbingal - Parkes	512.840	Road	Private	
3875	Private Lxing Quandialla	Stockinbingal - Parkes	510.480	Road	Private	
1132	Eurabba Lane Quandialla	Stockinbingal -	509.743	Road	Public	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
		Parkes				
1131	Tapprel Lxing Quandialla	Stockinbingal - Parkes	508.989	Road	Public	Stop Signs
1130	Mary Gilmour Way Bribbaree	Stockinbingal - Parkes	502.854	Road	Public	Stop Signs
1129	Young Road Bribbaree	Stockinbingal - Parkes	500.272	Road	Public	Half Boom Flashing Lights
1128	Public Road Bribbaree	Stockinbingal - Parkes	498.198	Road	Public	Stop Signs
3874	Wests Private Lxing Bribbaree	Stockinbingal - Parkes	496.600	Road	Private	
1127	Sharrocks Road Weedallion	Stockinbingal - Parkes	494.486	Road	Public	Stop Signs
3873	Clarke Private Lxing Weedallion	Stockinbingal - Parkes	493.766	Road	Private	
1126	Sharrocks Road Weedallion	Stockinbingal - Parkes	492.544	Road	Public	Stop Signs
1125	Weedallion Road	Stockinbingal - Parkes	489.884	Road	Public	Stop Signs
3872	Weedallion Private Lxing	Stockinbingal - Parkes	487.983	Road	Private	
1868	Weedallion Road	Stockinbingal - Parkes	485.476	Road	Public	Stop Signs
1124	Old Weedallion Road	Stockinbingal - Parkes	484.680	Road	Public	Stop Signs
1123	Tubbul Road Weedallion	Stockinbingal - Parkes	483.506	Road	Public	Stop Signs
3871	Milvale_Private_Lxing	Stockinbingal - Parkes	482.412	Road	Private	
1122	Rosedale Lxing Milvale	Stockinbingal - Parkes	481.493	Road	Public	Stop Signs
3870	Milvale Private Lxing	Stockinbingal - Parkes	480.184	Road	Private	
1121	Bookers Lane Milvale	Stockinbingal - Parkes	478.813	Road	Public	Stop Signs
1120	Old Milvale Road Milvale	Stockinbingal - Parkes	478.092	Road	Public	Stop Signs
1119	Young Road Milvale	Stockinbingal - Parkes	475.897	Road	Public	Primary Flashing Lights
1118	Johnson Lxing Milvale	Stockinbingal - Parkes	474.066	Road	Public	Stop Signs

ALCAM ID	Road Name	Line Segment	KM	Traffic Type	Access	Control Type
3869	Milvale Private Lxing	Stockinbingal - Parkes	473.225	Road	Private	
1117	Davidsons Lxing Milvale	Stockinbingal - Parkes	472.605	Road	Public	Stop Signs
3868	Davidsons Private Lxing Milvale	Stockinbingal - Parkes	470.943	Road	Private	
3867	Davidsons Private Lxing Milvale	Stockinbingal - Parkes	469.106	Road	Private	
1116	Davidsons / Maleeja Lxing Milvale	Stockinbingal - Parkes	468.786	Road	Public	Stop Signs
3866	Reid Private Lxing Milvale	Stockinbingal - Parkes	466.259	Road	Private	
1115	Reed Lxing Milvale	Stockinbingal - Parkes	465.442	Road	Public	Stop Signs
3865	Reid Private Lxing Stockinbingal	Stockinbingal - Parkes	463.910	Road	Private	
1114	Old Milvale Road Stockinbingal	Stockinbingal - Parkes	462.596	Road	Public	Stop Signs
3864	Manning Private Lxing Stockinbingal	Stockinbingal - Parkes	461.711	Road	Private	
1113	Old Milvale Road Stockinbingal	Stockinbingal - Parkes	460.681	Road	Public	Stop Signs
3863	Ryles Private Lxing Stockinbingal	Stockinbingal - Parkes	460.467	Road	Private	
1112	Freemans Lane Stockinbingal	Stockinbingal - Parkes	459.183	Road	Public	Stop Signs
1111	Grogan Road Stockinbingal	Stockinbingal - Parkes	458.359	Road	Public	Half Boom Flashing Lights
1110	McClaughins Lane Stockinbingal	Stockinbingal - Parkes	458.190	Road	Public	Stop Signs
3862	Mortons Private Lxing Stockinbingal	Stockinbingal - Parkes	455.882	Road	Private	
3861	Private Lxing Stockinbingal	Stockinbingal - Parkes	455.378	Road	Private	
Bogan Gate to Tottenham						
101	Station Street / Henry Parkes Way Bogan Gate	Bogan Gate - Tottenham	483.760	Road	Public	Give Way Signs
102	Foothills Lane Bogan Gate	Bogan Gate - Tottenham	484.674	Road	Public	Stop Signs
103	The Bogan Way Bogan Gate	Bogan Gate - Tottenham	486.003	Road	Public	Give Way Signs

1.8 Emergency Local Releases

Nil

1.9 Maximum Permanent Speeds and Permanent Speed Restrictions

Refer the Route Access Standard - Defined Interstate Rail Network Section Pages D11 and D14 for all speed information.

1.10 Maximum Train Length

Maximum train length is 1800 metres.

1.11 Structure Clearances

Refer Route Access Standards for Rolling Stock Outlines.

1.12 Operation of Double Stack Containers

LOCATION	TRACK	SUITABLE FOR DOUBLE STACK CONTAINERS
Broken Hill	Goods Loop	Yes
	South Through Road	Yes
Kinalung	Loop Line	Yes
Menindee	Loop Line	Yes
Kaleentha	Loop Line	Yes
Darnick	Loop Line	Yes
	Up Siding	Yes
Ivanhoe	Loop Line	Yes
Trida	Loop Line	Yes
Matakana	Loop Line	Yes
Euabalong West	Up Sidings	No
Kiacatoo	Down Siding	No
Condobolin	Down Sidings	No
	Loop Line	Yes
Yarrabandai	Up Siding	Yes
	Loop Line	Yes
Bogan Gate	Loop Line	Yes
	Up Siding	No
Gunningbland	Down Siding	No
Goobang Junction	Loop Line	Yes
	Sidings	Yes

1.13 Communications

The WB radio frequency (450.050MHz) at Parkes (CRN) and Goobang Junction (ARTC) is shared between ARTC's Junee Control Centre and CRN's Orange Control Centre. Although ARTC and CRN will have separate WB installations within each respective location, transmissions by ARTC, CRN and operators within the yard will be heard by the other parties. To avoid potential confusion the following protocols will apply in both locations.

The WB radio (450.050MHz) frequency is to be used for operational requirements between the Network Control Centre and train movements.

The WB radio (450.050MHz) must not to be used for the shunting or marshalling of trains at Goobang Junction \ Parkes. The shunting and marshalling operations at Goobang Junction \ Parkes must be conducted on discreet radio channels only.

Note: The CRN Network Control Officer must be addressed as Orange Control for all WB communications between operators and the CRN Network Control Officer. The ARTC Network Controller for Goobang Junction must be addressed as Junee Control.

1.14 Wayside Monitoring Systems

High Load Detectors

High load detectors are located at Goobang Junction at 447.429km (East detector) and 450.210km (West detector) and are used to detect loading that exceeds the height of 4.270m.

The alarm for the high load detector is located in Junee Network Control.

If the alarm is activated, the Signaller must arrange for the train to be inspected by the Operator.

At no time must a wagon with loading exceeding 4.270m in height be allowed to depart Parkes yard in the Up direction.

Dragging Equipment Detector

A dragging equipment detector is located at Broken Hill next to Up home signal No. 5, and a red indicator light inscribed "Dragging gear alarm" and a pushbutton inscribed "Pull to test/Push to cancel alarm" are provided on the indicator diagram in the signal box.

When dragging equipment is detected, the red light for the applicable detector will be displayed and an audible alarm will sound, until the alarm is cancelled by the Signaller.

The red light will remain displayed until the train has cleared the track circuits for the detector and the cancel button has been depressed.

A daily test of the warning light must be carried out by pulling the pushbutton and then ensuring that the warning light is illuminated and the alarm sounds. Results of the test must be recorded in the train register book or other recording system provided, and the Signals maintenance representative must be advised of any defects noted.

Responding to a Dragging Equipment Alarm

When the detector is activated, the Signaller must:

- cancel the alarm
- contact the Driver of the train that activated the detector and instruct the Driver to bring the train to a stand

- instruct the Driver to inspect the train to identify the problem and then advise the Signaller of the status of the problem and the action that must be taken to resolve it
- and inform the Train Controller that the dragging equipment detector has been activated and of the status of the problem.

1.15 Ruling Gradients

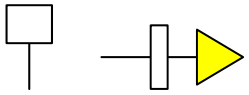
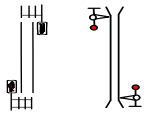
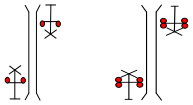
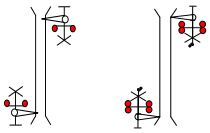
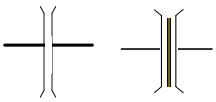
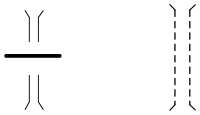
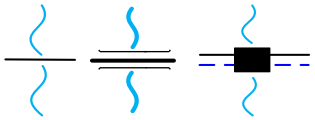
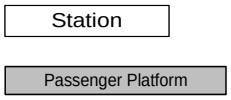
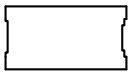
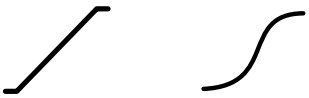
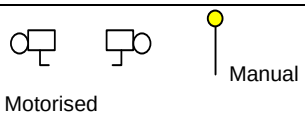
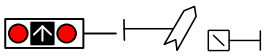
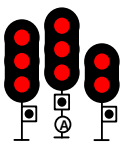
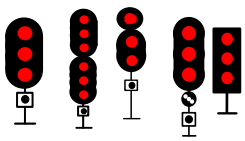
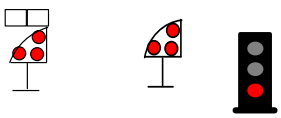
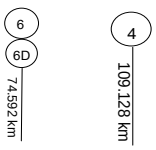
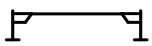
Broken Hill to Goobang Junction	1 in 100
Goobang Junction to Broken Hill	1 in 100
Goobang Junction to Forbes	1 in 80
Forbes to Goobang Junction	1 in 90
Forbes to Stockinbingal	1 in 100
Stockinbingal to Forbes	1 in 80

1.16 Curve and Gradient Data

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

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

1.17 Drawing Legend

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

2 Locations and Sections Information

2.1 Broken Hill (BKH)

General Arrangements

"Begin Train Order Working" (1123.069km) and "End Train Order Working" (1123.069km) boards are provided adjacent to Down home signal BH4 to define the beginning and end of Train Order Working.

Up home signals Nos. 47(M) and 49(M) for the Broken Hill – Kinalung section will display a lunar white pulsating aspect when in the clear position.

For NSW Trains private siding details refer to Safety Interface Agreement IA1141.

Operation of Points and Signals

The points and signals at Broken Hill are operated from the ARTC Network Control Centre South (NCCS).

All points worked from NCCS are controlled by track circuit and cannot be moved unless the track indicator diagram is showing that the track(s) controlling the points is unoccupied.

Locking

Type	Provided
Approach	Yes
Route	Yes

Driver's Time Release Push Button

When a short train or a light locomotive is required to enter the Goods line or the Goods loop but will not proceed to the remote end of the line:

- The route locking of points at the remote end may be released by a time release activated by the train or locomotive standing near the signal at the entrance to the Goods line or the Loop line in conjunction with the operation of a Driver's pushbutton.

Driver's time release pushbuttons are provided near signals Nos. 35, 37, 40 and 42.

The pushbuttons are mounted in a box near the signals or on a post near the signals.

Operation of Power Operated Points in an Emergency

All points worked from the NCCS are electrically power-operated.

If these points fail to operate correctly, a transit alarm will sound and the Signaller 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.

Alternative Route Setting Selection

Certain routes within the interlocking are provided with alternative clearance points.

On these routes, when the Signaller attempts to set a route and the overlap portion of that route is occupied by a train but an alternate route through the points in the other position is clear, the route will automatically set for the alternate path, provided that the points are free to move when the route is operated.

If the Signaller requires facing points in the overlap of a route to remain in the existing position to give the signal a clear overlap, the Signaller must operate the point lever to correspond with the current position of the points before operating the route setting buttons.

Automatic Point Normalising

When a route is normalised by operating the commence button for that route, points within the route will in most cases remain in the position in which they were last set, with the following exceptions.

Exception: In the case of any route that is set over No. 99, No. 100, No. 101 or No. 104 points in the reverse position, the points will be automatically restored to the normal position as soon as the route concerned is normalised.

The purpose of restoring the points automatically is to keep the catchpoints at the Sydney ends of the lines concerned in the open positions, except when it is required to close the catchpoints for the passage of a train or a shunting movement.

If an attempt is made to restore the route to normal while a train is approaching or passing over No. 99, No. 100, No. 101 or No. 104 points, the points will not automatically return to normal but must be restored by operating the point lever after the passage of the train.

Point normalising indicator lights:

Two point normalising indicator lights are provided in the indicator diagram.

These indicators will display a red light in conjunction with the sounding of an alarm when:

- any route that required Nos. 99 and 104 points or Nos. 100 and 101 points in the reverse position to return to normal while a train is approaching or passing over the points.

Signalling Power Supply Indicators

An indicator panel is provided in the signalbox for the signalling power supplies in the Broken Hill area.

The green "AC supplies normal" indication will be displayed when all the AC power supplies are available and are in use.

The green "DC supplies" indication will be displayed when all the DC power supplies at the signalbox are available and are in use.

The red "Emergency" indication will be displayed when the motor generator set is running and the emergency power supply is in use.

The yellow "Fuel alarm" indication will be displayed when the fuel supply for the emergency motor generator set is reduced to a quantity below that required for four hours' running.

An alarm is provided to warn of any alteration to the power supply and the Signaller must acknowledge the alteration by depressing the alarm pushbutton.

When there is any alteration or interruption to the AC or DC power supplies to the signalling, the Signaller must promptly inform the Signals maintenance representative.

Additional Indicators

Signal lamp indicators

A red indicator light inscribed "East signals" will be displayed when a total failure of a main light in one or more colour light running signals at the eastern end of the yard is detected.

A red indicator light inscribed "West signals" will be displayed when a total failure of a main light in one or more colour light running signals at the western end of the yard is detected (signals Nos. 5 and 56 excepted).

When either of the indicator lights is displayed, the Signaller must promptly inform the Signals maintenance representative.

Gate Indicator

A red indicator light inscribed "Down" and a white indicator light inscribed "Up" are located next to the normal and reverse positions of No. 95 gate lever. The appropriate light will be displayed to indicate the position of the half-boom barriers at Iodide Street level crossing.

Block and time limit indicator lights for section Kanandah – Broken Hill

A white indicator light inscribed "Block" is provided in the indicator diagram and will be displayed when the Kanandah – Broken Hill section is unoccupied by a train and the absolute signals at Kanandah for the section to Broken Hill are in the stop position.

The "Block" light will be extinguished if an absolute signal at Kanandah is cleared for a train to proceed towards Broken Hill, or if a train departing from Broken Hill passes Down starting signal No. 56 (700.1km) and enters the section.

A red light inscribed "Time limit" will be displayed in the indicator diagram below the "Block" indicator light at the same time. The "Time limit" light will be displayed for a period of approximately 90 seconds, and then go out.

Down starting signal No. 56 (700.1km) may only be cleared for a train to depart from Broken Hill while the "Block" indicator light is displayed and after the "Time limit" indicator light has gone out.

Machine Circuit Breaker

A circuit breaker associated with the power supply to the route setting equipment on the control panel is located on the side of the control panel.

If this equipment fails, the Signaller should check the positions of the circuit breakers and reset them, if necessary.

If the circuit breaker fails to reset, the Signals maintenance representative must be promptly advised.

Eyre Street Level Crossing

Type F flashing lights and bells are provided at Eyre Street level crossing at 1123.232km.

The warning equipment is automatically controlled by track circuit for Down and Up trains on the main line, subject to the clearance of the Down home signal. The warning equipment is also manually controlled by operator’s pushbutton units for trains shunting the ballast siding.

If a train closely approaches Down home signal No. 4 at stop, the setting of the applicable signal route will cause the level crossing warning indicators to be displayed but clearing of the signals will be delayed for 15 seconds.

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

Operator’s pushbutton units for the level crossing

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.

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 operator’s pushbutton unit for one second.

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

Notice Boards

Notice boards inscribed "Shunting trains stop, press button for level crossing lights", are provided on posts next to the operator’s pushbutton units.

Iodide Street Level Crossing

Type F flashing lights, bells and half-boom barriers are provided at Iodide Street level crossing at 1124.253km.

The warning equipment is automatically controlled by track circuit for Down and Up trains, subject to the clearance of the signals on each side of the crossing. The equipment may also be manually controlled by No. 95 gate lever in the signal box.

If a train closely approaches any of the following signals at stop:

- Down 2nd home signal No. 8
- Up 5th home/starting main signal No. 47
- Up 4th home/starting, Goods line to main, signal No. 49
- or No. 14, No. 16, No. 20, No. 41 or No. 43 shunting signal

The setting of the applicable signal route will cause the level crossing warning indicators to be displayed but clearing of the signals will be delayed for 15 seconds.

If it becomes necessary to hold a train at any of the above signals after the signal has been cleared, the level crossing warning indicators will continue to be displayed for a period of 120 seconds after the signal is returned to stop and will then cancel automatically.

Shunt Ahead Signals

Shunt-ahead signals Nos. 47(S)B and 49(S)B are provided below Up 5th home/starting signal, main line, No. 47(M), and Up 4th home/starting signal, Goods line, No. 49(M).

When cleared, the shunt-ahead signals will authorise a train or a locomotive to proceed beyond the signal for shunting purposes without the Driver being in possession of a current order.

Trains or locomotives required to pass either home/starting signal for shunting purposes on the main line must do so only on the authority of the shunt-ahead signal.

Shunting Limit Board

A shunting limit board is provided at Broken Hill located on the Up side of the main line approximately 82 metres on the Kinalung side of frame B points.

The board is inscribed "Shunting limit in Up direction" and applies to shunting movements in the Up direction on the main line.

Drivers must not pass the shunting limit board unless they are in possession of a current order authorising the train to occupy the Broken Hill – Kinalung section.

Ground Frames

Frame B

Frame B is located on the Up side of the main line adjacent to the crossovers and provides access to the Ballast siding.

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

Releasing switch B is electrically released by No. 109 lever in the signal box.

A train or shunting movement requiring to shunt at the Ballast siding, must be brought to a stand with a portion of the train or the whole train no further than 146 metres on the Broken Hill side of the points, before the release may be obtained.

Lever C

Lever C is located on the Up side of the north Broken Hill sidings adjacent to the crossovers and provides access to the Boral siding.

Lever C is unlocked by an operator’s key, inscribed “Broken Hill SM”, which is located in the signal box.

Lever R

Lever R is located on the Up side of the North Broken Hill sidings adjacent to the crossovers and provides access to the M. Dann & Co. siding.

Lever R is unlocked by an operator’s key, inscribed “Broken Hill SM”, which is located in the signal box.

Frame E

Frame E is located on the Up side of the main line adjacent to the crossovers and provides access to No. 1 North Marshalling siding.

Frame E is released by a key from releasing switch E, which is located adjacent to frame E.

Releasing switch E is electrically released by No. 94 lever in the signal box.

Frames F and G

Frames F and G are located on the Up side of the South siding adjacent to the crossovers and provide access to the Repair sidings.

Frames F and G are released by a key from releasing switches F and G, which are located adjacent to frames F and G.

Releasing switches F and G are electrically released by No. 89 lever in the signal box.

Frame H

Frame H is located on the Up side of the Goods line adjacent to the crossovers and provides access to the South Through road.

Frame H is released by a key from releasing switch H, which is located adjacent to frame H.

Releasing switch H is electrically released by No. 85 lever in the signal box.

A shunting movement requiring to proceed through frame H crossover, must be brought to a stand with a portion of the train or the whole train between the points and Down 4th home, Goods line, signal No. 50, before the release can be obtained.

Frame J

Frame J is located on the Up side of the main line adjacent to the crossovers and provides access to the Locomotive Arrival siding.

Frame J is released by a key from releasing switch J, which is located adjacent to frame J.

Releasing switch J is electrically released by No. 83 lever in the signal box.

A shunting movement requiring to proceed through frame J points must be brought to a stand with a portion of the train or the whole train between the points and Down 4th home signal No. 52, before the release can be obtained.

Frame K

Frame K is located on the Up side of the main line adjacent to the crossovers and provides access to the North and South Through roads.

Frame K is released by a key from releasing switch K, which is located adjacent to frame K.

Releasing switch K is electrically released by No. 81 lever in the signal box.

A shunting movement requiring to proceed through frame K crossovers must be brought to a stand with a portion of the train or the whole train no further than 76 metres from the points concerned, before the release can be obtained.

Lever N

Lever N is located on the Down side of the South Through road adjacent to the crossovers and provides access to the Zinc Corporation and New Broken Hill siding.

Lever N is unlocked by a key kept in the signal box.

Lever O

Lever O is located on the Down side of the South Through road adjacent to the crossovers and provides access to the Broken Hill South siding.

Lever O is unlocked by a key kept in the signal box.

The catchpoint worked from lever O is fitted with a spring attachment and may be trailed through by trains travelling towards Broken Hill yard without the necessity of operating the lever.

If any train proceeding towards Broken Hill yard is brought to a stand while passing over the catchpoint, the Driver must exercise care to avoid derailing due to the train moving back.

Frame P

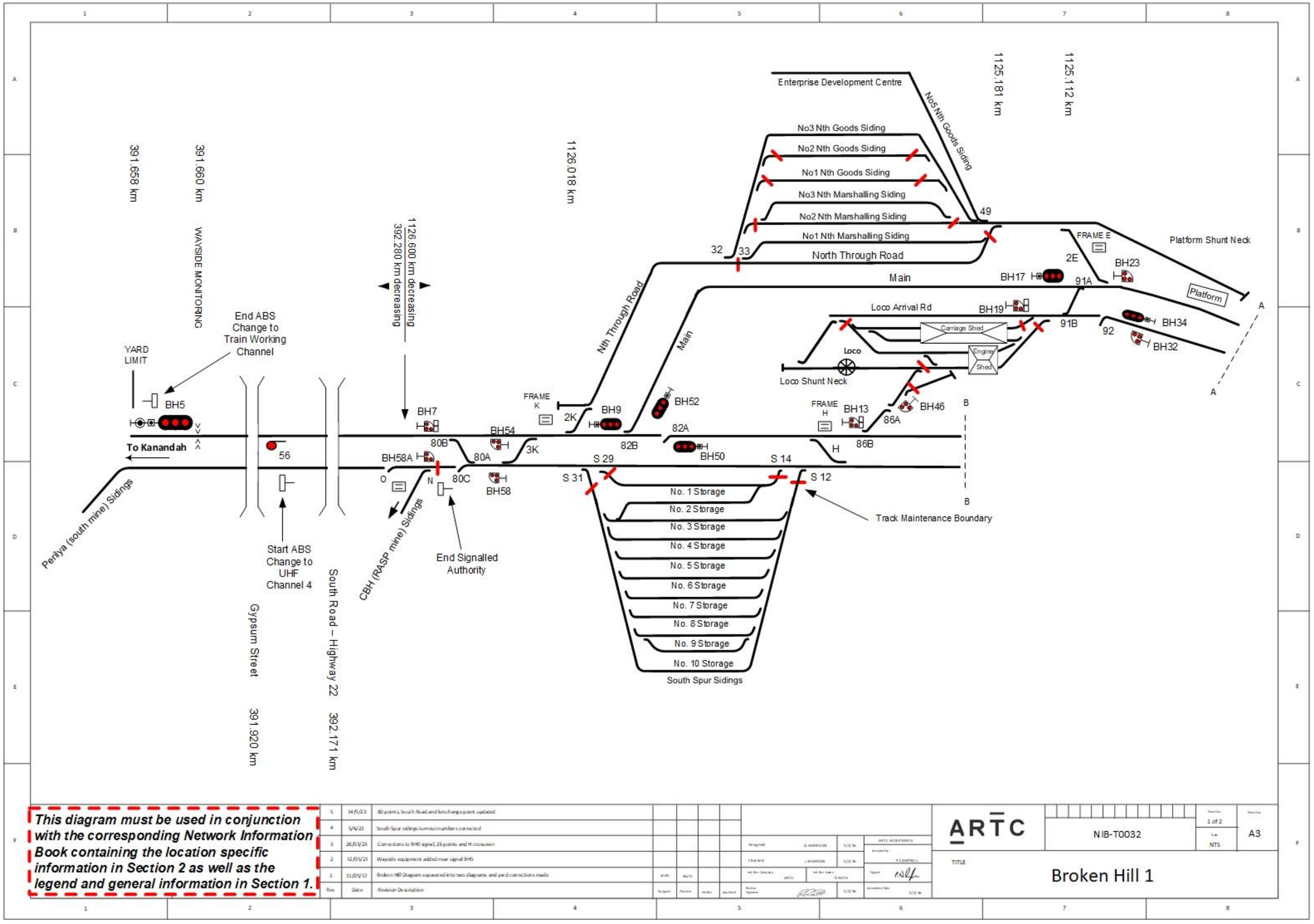
Frame P is located on the Up side of the main line adjacent to the crossovers and provides access to the South Through road.

Frame P is fitted with a duplex lock. The top lock of the duplex lock is unlocked by a key from the signal box, and the bottom lock of the duplex lock is unlocked by a key from releasing switch P.

Releasing switch P is electrically released from No. 80 lever in the signal box.

A shunting movement requiring to proceed through frame P crossover, must be brought to a stand with a portion of the train or the whole train between the points and Down starting signal No. 56, before the release can be obtained.

Note: Roads to this location only accessible by 4WD



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

Rev	Date	Revision Description
5	14/9/23	80 points, South Road and fan change point updated
4	5/6/23	South Spur sidings turnout numbers corrected
3	28/03/23	Connections to BH9 signal, 2k points and H crossover
2	12/05/21	Wayside equipment added near signal BH5
1	11/09/17	Broken Hill Diagram separated into two diagrams and yard corrections made

ARTC

NIB-T0032

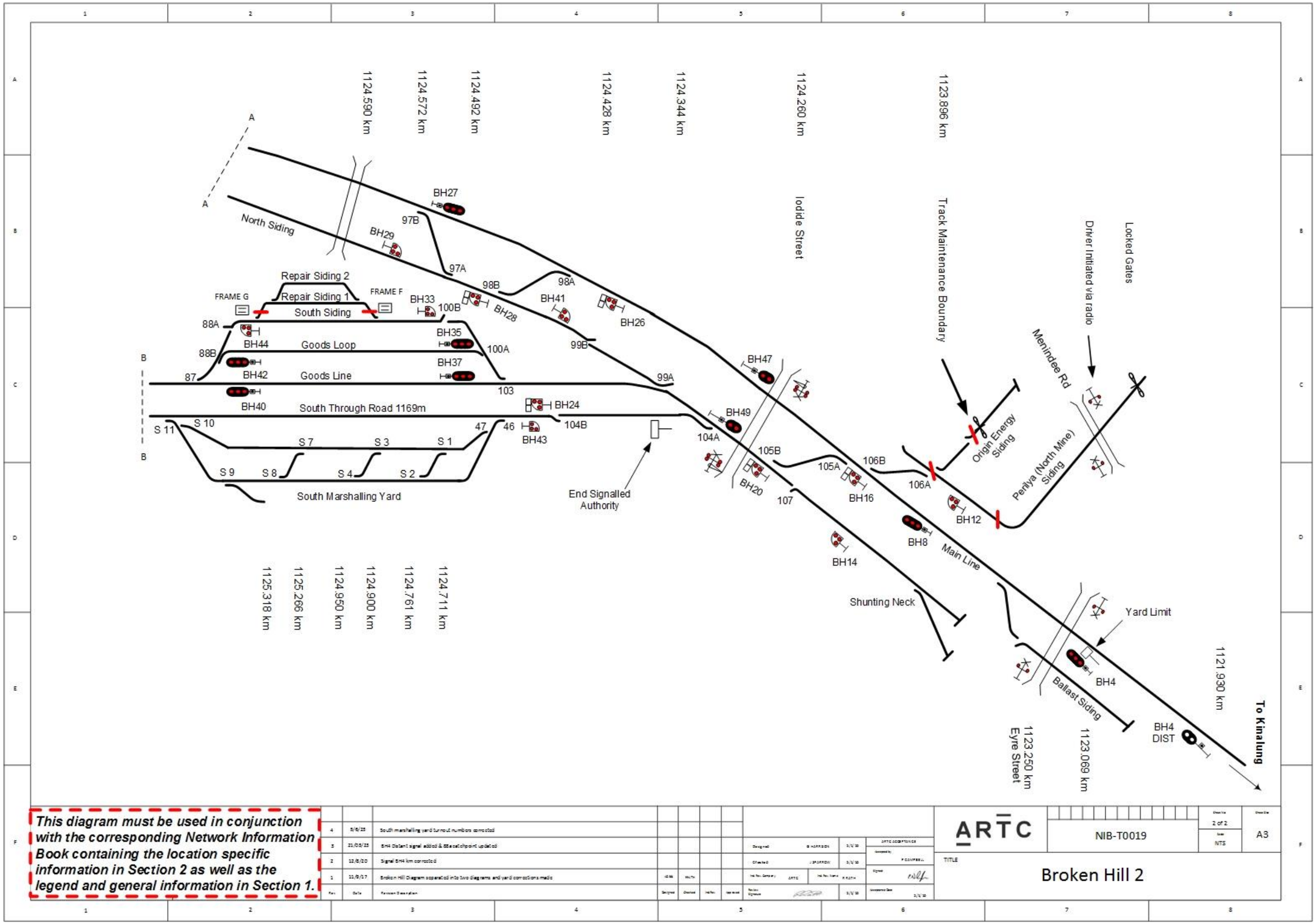
1 of 2

A3

NTS

TITLE

Broken Hill 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.

Rev	Date	Revision Description
4	5/6/25	South marshalling yard turnout numbers corrected
3	21/05/25	BH4 Distant signal added & 65acatchpoint updated
2	12/8/20	Signal BH4 km corrected
1	11/8/17	Broken Hill Diagram seperated into two diagrams and yard corrections made

ARTC

NIB-T0019

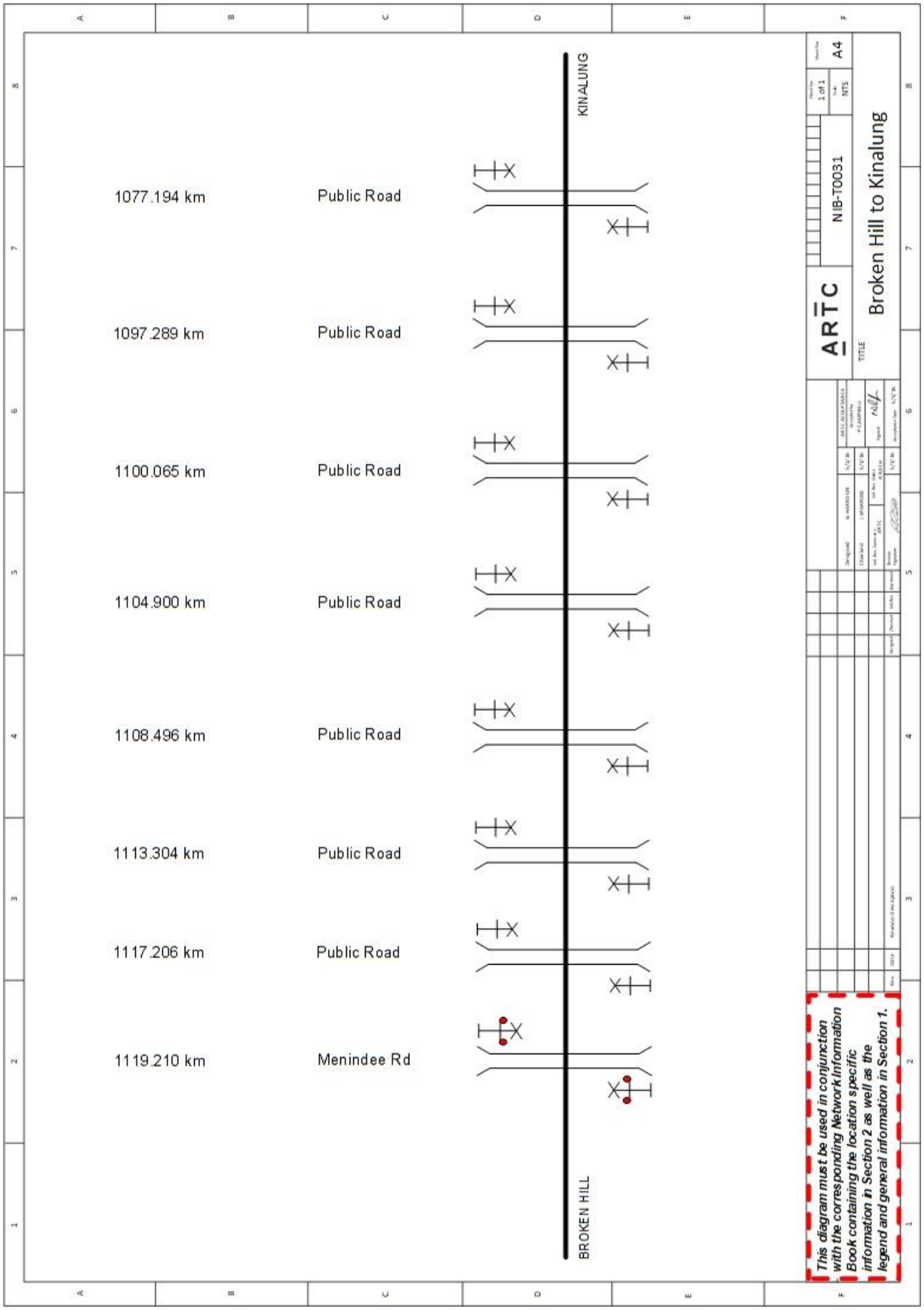
2 of 2

A3

NTS

TITLE

Broken Hill 2


KINALUNG
1077.194 km
Public Road
1097.289 km
Public Road
1100.065 km
Public Road
1104.900 km
Public Road
1108.496 km
Public Road
1113.304 km
Public Road
1117.206 km
Public Road
1119.210 km
Menindee Rd
BROKEN HILL
ARTC
NIB-T0031
TITLE
Broken Hill to Kinalung
A4
NTS
1 of 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.

2.2 Kinalung (KIN)

General Arrangements

Kinalung is a crossing location in train order territory and is provided with an 1850 metre long crossing loop and a maintenance siding.

The points at each end of the crossing loop are power operated, main line indicators “X” and “Y” are provided near the points in each direction. Trailing point indicators “AM” & “AL” are provided instead of clearance posts in the Up direction with trailing point indicators “BM” & “BL” provided instead of clearance posts in the Down direction.

The trailing point indicators will display either a “white arrow” aspect or two red lights depending on which way the points are set, the normal indication will be for the “AM” & “BM” indicators to be displaying a “white arrow” while “AL” & “BL” indicators will be displaying two red lights.

Push button panels are provided near the main line indicators (MLI's) and the trailing point indicators, the push button panels are secured by an SL lock.

Maintenance Siding

The maintenance siding is located on the Down side of the loop line and the points operated from frame C at the eastern end and from frame E at the western end. Frames C and E are both unlocked by an operator’s key.

Operation of Points

The operation of points and Main Line Indicators (MLI’s) may be manually controlled by a Competent Worker via the use of operator's pushbutton units adjacent to the MLI’s.

The pushbutton panels contain three push buttons (Main Clear, Loop Clear and Indicator Cancel); to enable operation of the push buttons the operator’s key must be inserted in the lock provided and turned.

A LED labelled “Points Free” is provided in the pushbutton units to indicate that the points are free to operate.

The normal indications of “X” and “Y” Main Line Indicators (MLI’s) are pulsating white, indicating the points are set for the Main line at Kinalung.

The points are provided with a self-normalising feature. When set in the reverse position, after a train has occupied and then has cleared the points track circuit, the points will return to the normal position after a time out of 30 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 hut 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 MLI's will normally display a pulsating white aspect and the main line trailing point indicator will display a white arrow, and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect and the trailing point indicator will continue to display a white arrow, provided all other conditions are satisfied.

When the pulsating white indication is displayed this will allow a "through" train to pass through Kinalung at permitted full line speed on main line as the trailing point indicator at the other end of the loop will be displaying a "White Arrow" aspect.

Entry into the Loop Line

For movements into the Loop line, the train must be STOPPED short of the MLI.

Press the "Indicator Cancel" button provided in the pushbutton unit near the MLI to restore the MLI and the Main Line point indicator to Red. Following the expiry of 2 minute time out, the points will become free to operate for the Loop line.

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 to the reverse position, the "Points Free" indication will be extinguished and the MLI will display a band of white lights indicating the points are set for the Loop line.

To cancel the route into the Loop line, press the "Indicator Cancel" button, which will result in the white band of lights being extinguished. Following the expiry of a 2 minute timeout, the points will become free to operate. Pressing of the "Main Clear" button will restore the points to normal and clear the MLI to pulsating white and the main line point indicator to a white arrow.

Exit from the Loop Line

To exit the Loop line, press the "Indicator Cancel" button provided in the pushbutton unit near the Loop line point indicator. This will restore the MLI and main line Point Indicator to Red. Following the timeout of 2 minutes, the points will become free to operate for the Loop line.

The Competent Worker must ensure that the "Points Free" indicator is displayed and then press the "Loop Clear" button. Once the points have completed their movement to the reverse position, the Loop line point indicator will display a White Arrow, indicating the points are set, allowing the movement onto the Main line.

To cancel the route out of the Loop line, press "Indicator Cancel", this will result in extinguishing of the white arrow and the display of the two red lights on the Loop line point indicator. Following the expiry of a 2 minute timeout, the points will become free to operate. Press "Main Clear" to restore the points to normal and clear the Main Line Indicator to pulsating white and the Main line point indicator to a white arrow.

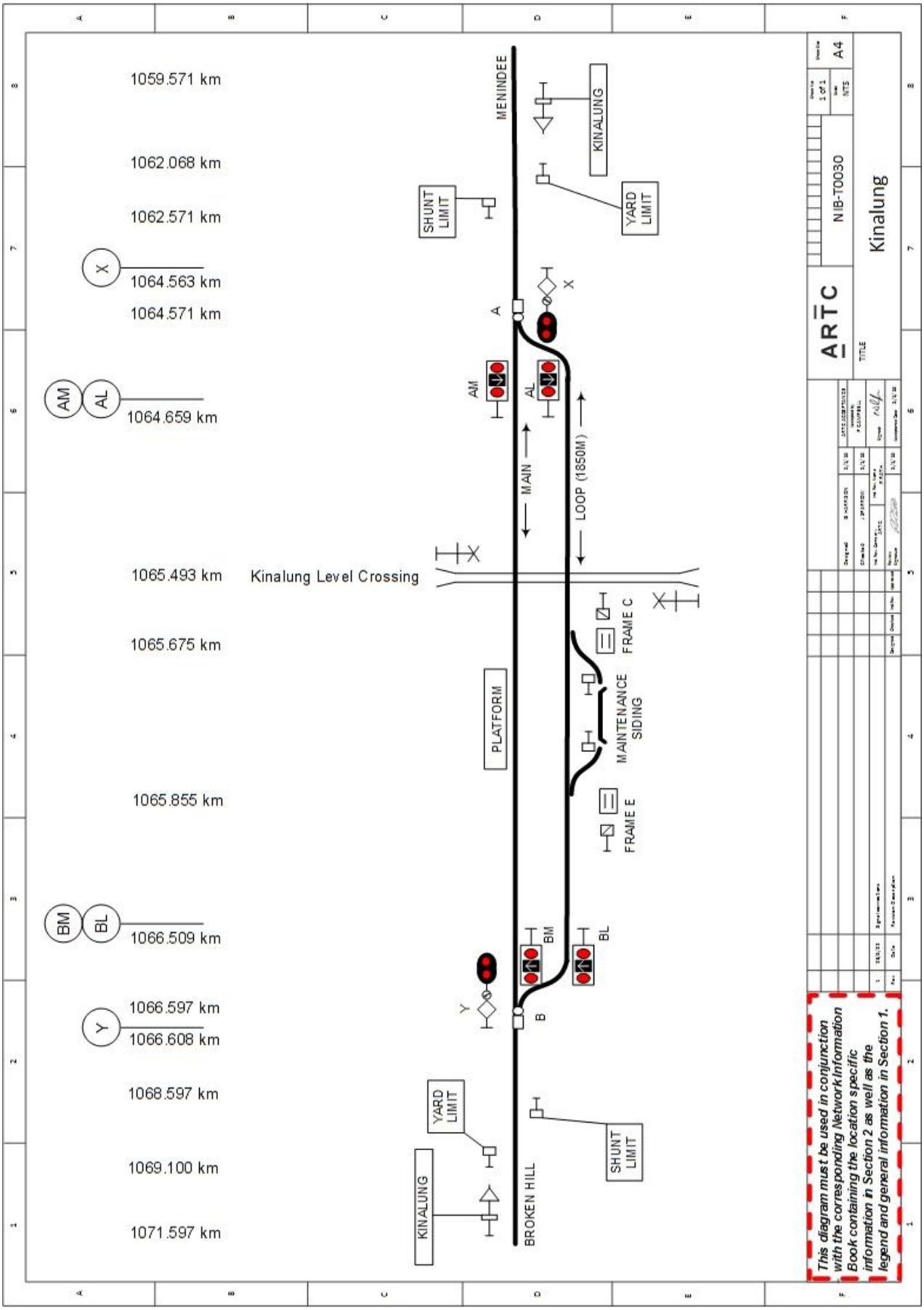
Locations of Train Order Signs

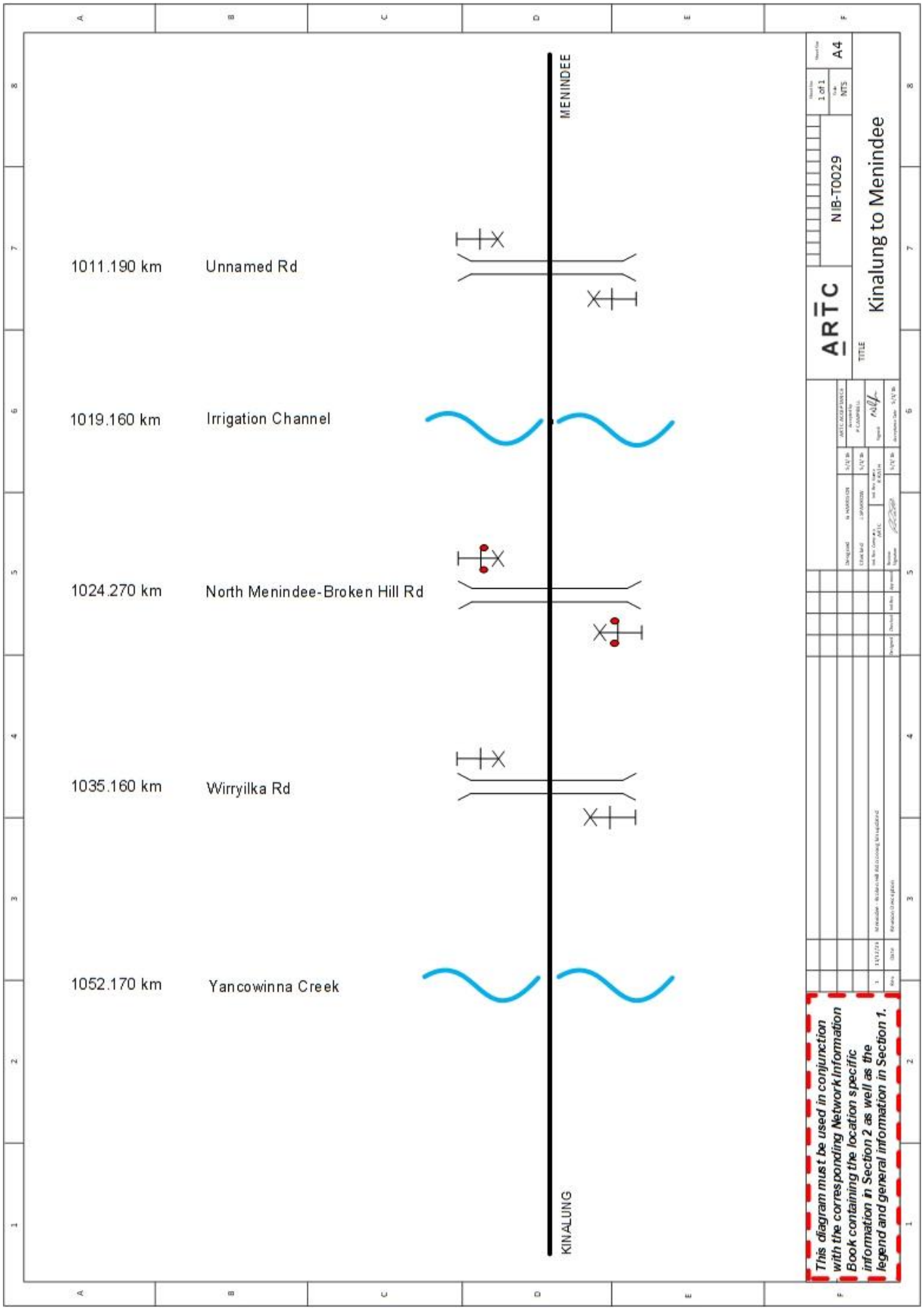
The following table shows the location of the train order working signs at Kinalung

Sign ID	Sign Location
Down Location Sign	1059.571 km
Down Yard Limit Sign	1062.071 km
Up Shunt Limit Sign	1062.571 km
Down Shunt Limit Sign	1068.597 km
Up Yard Limit Sign	1069.097 km
Up Location Sign	1071.597 km

Note: As stated in the information above, the trailing point indicators are provided in lieu of clearance posts and these are located at 1064.659km and 1066.509km respectively.

Note: Roads to this location only accessible by 4WD


1059.571 km
1062.068 km
1062.571 km
X
1064.563 km
1064.571 km
AM
AL
1064.659 km
1065.493 km
Kinalung Level Crossing
1065.675 km
1065.855 km
BM
BL
1066.509 km
Y
1066.597 km
1066.608 km
1068.597 km
1069.100 km
1071.597 km
MENINDEE
KINALUNG
SHUNT LIMIT
YARD LIMIT
A
MAIN
LOOP (1850M)
PLATFORM
FRAME C
MAINTENANCE SIDING
FRAME E
B
BROKEN HILL
ARTC
NIB-T0030
Kinalung
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.


MENINDEE
1011.190 km
Unnamed Rd
1019.160 km
Irrigation Channel
1024.270 km
North Menindee-Broken Hill Rd
1035.160 km
Wirryilka Rd
1052.170 km
Yancowinna Creek
KINALUNG
NIB-T0029
Kinalung to Menindee
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.3 Menindee (MNE)

General Arrangements

Menindee is a crossing location.

Operation of Points

All interlocked points at Menindee are operated from ground frames.

Ground Frames

Frame A

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

Frame A is unlocked by an operator's key.

Frames B and E

Frames B and E are located on the Up side of the loop line adjacent to the points and provide access to the goods siding.

Frame E is unlocked by an operator's key.

Frame B is unlocked by Annett key from frame A, which is released by an operator's key.

Frame F

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

Frame F is unlocked by an operator's key.

Shunting Limit Boards

Shunting limit signs are provided in both the Up and the Down directions to define shunting limits.

Main Line Indicators and Push Buttons

A Main Line Indicator, 'X' MLI will be installed at 1006.895km facing to down trains and will normally display a pulsating white Clear indication. Push buttons inscribed 'Clear' and 'Cancel' for 'X' MLI are located in a box mounted on 'X' MLI and locked by an SL lock.

An additional MLI Push Button box also locked by an SL lock, with 'Clear' and 'Cancel' push buttons for 'X' MLI will be mounted on a post at the western end of the station platform.

'X' MLI is fitted with a timer to suppress the operation of the level crossing during the scheduled stop of WP45 Countrylink passenger train. This timer will be in effect 15 minutes before and through to 60 minutes after the timetabled passage of WP45 and will place 'X' MLI to stop and suppress the level crossing protection. The MLI can be cleared using either of the MLI 'Clear' push buttons during the period that the timer is in effect.

'F' MLI presently located at 1007.505km will be relocated nearer to Frame F at 1007.265km and will show the same indications as previously exhibited. 'F' MLI will have a new MLI Push Button box fitted to it which will contain 'Clear' and 'Cancel' push buttons for 'F' MLI. This box will be locked by an SL lock.

'A' MLI will have a new yellow proceed aspect installed which will be displayed when 'X' MLI is displaying a red stop aspect. These indications are in accordance with ARTC Network Rules & Procedures ANSG 604.

Shunter's Push Button boxes will be installed on either side of the level crossing adjacent to the loop line and will contain 'Start' and 'Cancel' push buttons for the level crossing equipment.

An additional Shunter's Push Button box will be installed at Frame F Duplex Lock for trains, longer than 260 metres in length, entering the loop in the up direction.

These boxes will be locked by an SL lock.

Duplex Lock

A duplex lock will be installed at Frame F. The existing Operators Lock installed on lever 1 of Frame F will be replaced with a Fortress Lock. The top lock of the duplex lock will accept an Operators Key and will release the Fortress Key in the bottom lock. The Fortress Key will unlock lever 1 of the ground frame.

Operational Arrangements

For trains travelling in the Down direction outside the times that 'X' MLI timer is in effect, the level crossing warning equipment will activate once the train occupies the Down approach section adjacent to the Down driver's level crossing warning board. 'X' MLI will show a pulsating white proceed aspect in the down direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For trains travelling in the Up direction, the level crossing warning equipment will activate once the train occupies the Up approach section adjacent to the Up driver's level crossing warning board. 'F' MLI will show a pulsating white proceed aspect in the up direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For up trains wanting to enter the loop through Frame F, the level crossing will activate once the train occupies the Down approach section adjacent to the Up driver's level crossing warning board. The 'F' MLI will be displaying a proceed aspect and the driver must stop short of the MLI and operate the 'Cancel' button in the 'F' MLI pushbutton box. The MLI will then display a stop aspect and the level crossing will cease to operate after a 2 minute time delay. The driver can operate Frame F using Frame F duplex lock. Trains longer than 260metres must also use the Shunter's Push Button at Frame F to avoid a second stop at the crossing. Trains shorter than 260metres in length must stop at the 'stop' sign on the western side of the level crossing and use the Shunter's Push Button. Trains must ensure the level crossing equipment is operating and booms are horizontal before proceeding across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For down trains in the loop wanting to pass over the level crossing either to depart the loop or to split their train, the driver must stop at the stop sign on the eastern side of the level crossing and operate the 'Start' button in the Shunter's Push Button box. The level crossing will then operate and when the booms have fully descended the train can cross the level crossing. The level crossing will cease to operate when the train clears the level crossing.

If 'F' or 'X' MLI are displaying a stop indication to an approaching train, the level crossing will not operate and the driver must bring the train to a stop at the MLI. The driver can then operate the button labelled 'clear' in the MLI push button box. The level crossing will then operate and when the booms have fully descended the MLI will clear.

Menindee Broken Hill Road Level Crossing

Type F flashing lights and bells are provided at the Menindee Broken Hill Road level crossing at 1009.119km.

The warning equipment is automatically controlled by track circuit for both Down and Up trains.

Racecourse Road Level Crossing

Racecourse Road level crossing at Menindee Yard has active level crossing protection consisting of LED flashing lights, boom gates and warning bells.

The level crossing warning equipment is activated via conventional track circuit equipment.

Level crossing approach warning signs are located at:

- Down direction 1006.390km
- Up direction 1007.678km

Additional details include

- Level crossing hut (on Ivanhoe side of crossing on up side of line)
- 'X' Down Main Line Indicator with MLI Push Button box
- 'F' MLI Push Button box
- An additional 'X' MLI Push Button box mounted on a post on the western end of the station platform
- Shunter's Push Button boxes either side of the level crossing applying to the loop line
- Shunter's Push Button box at Frame F Duplex Lock
- Duplex Lock at Frame F
- Manual Operation Switch, Test Switch box and Emergency Switch box (located on the side of the level crossing hut)

Level Crossing Monitoring

The level crossing is monitored by Network Control Centre South.

Failure of the Cerberus Monitoring Equipment

In the event of a failure of the Cerberus monitoring equipment daily testing must be implemented in accordance with ARTC Network Rules & Procedures ANGE 218.

A 'Test' switch box is located on the outside of the Level Crossing Equipment Hut and is opened by the test key obtained from the ARTC Provisioning Centre at Menindee.

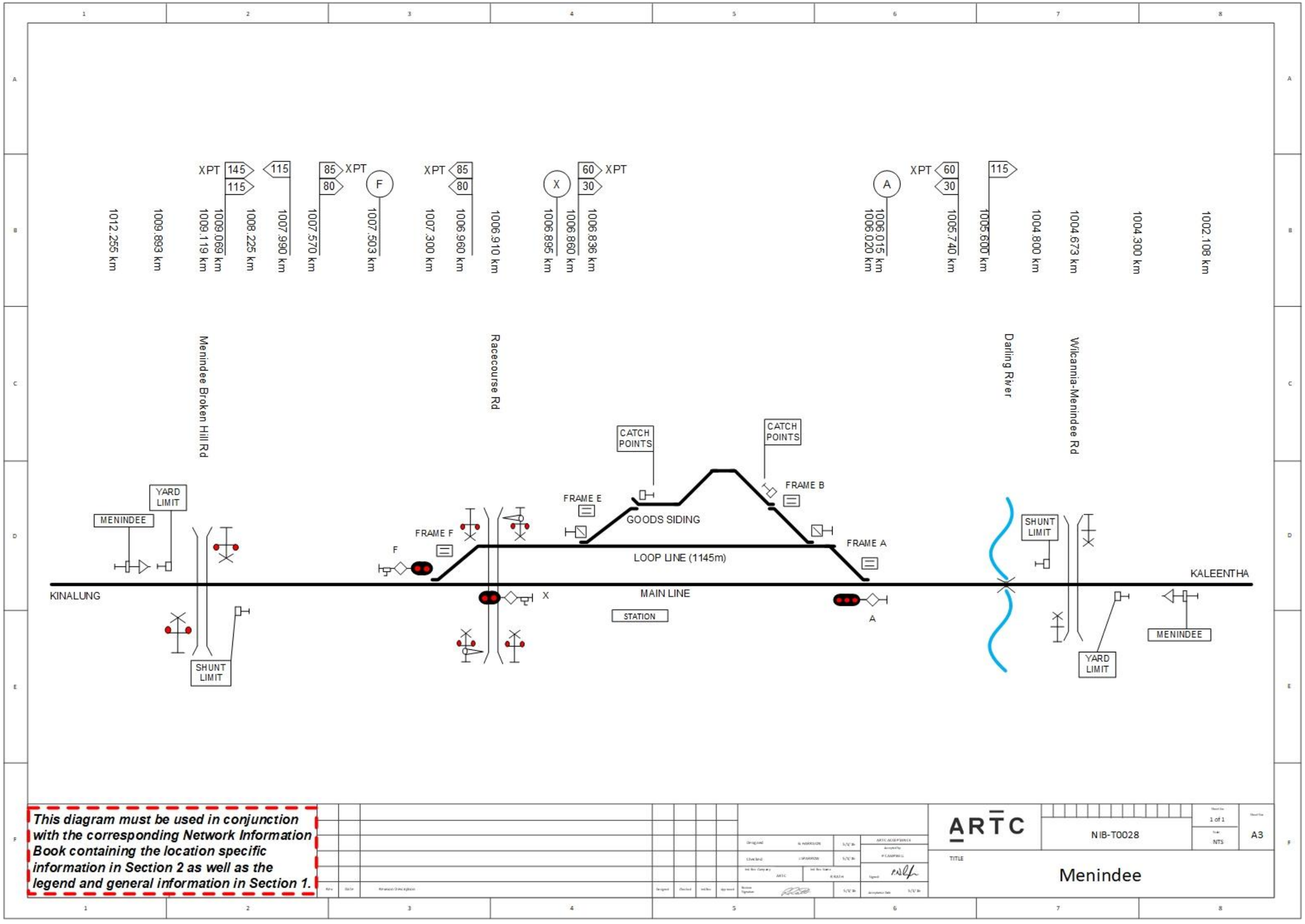
Emergency Operation of the Level Crossing Warning Equipment

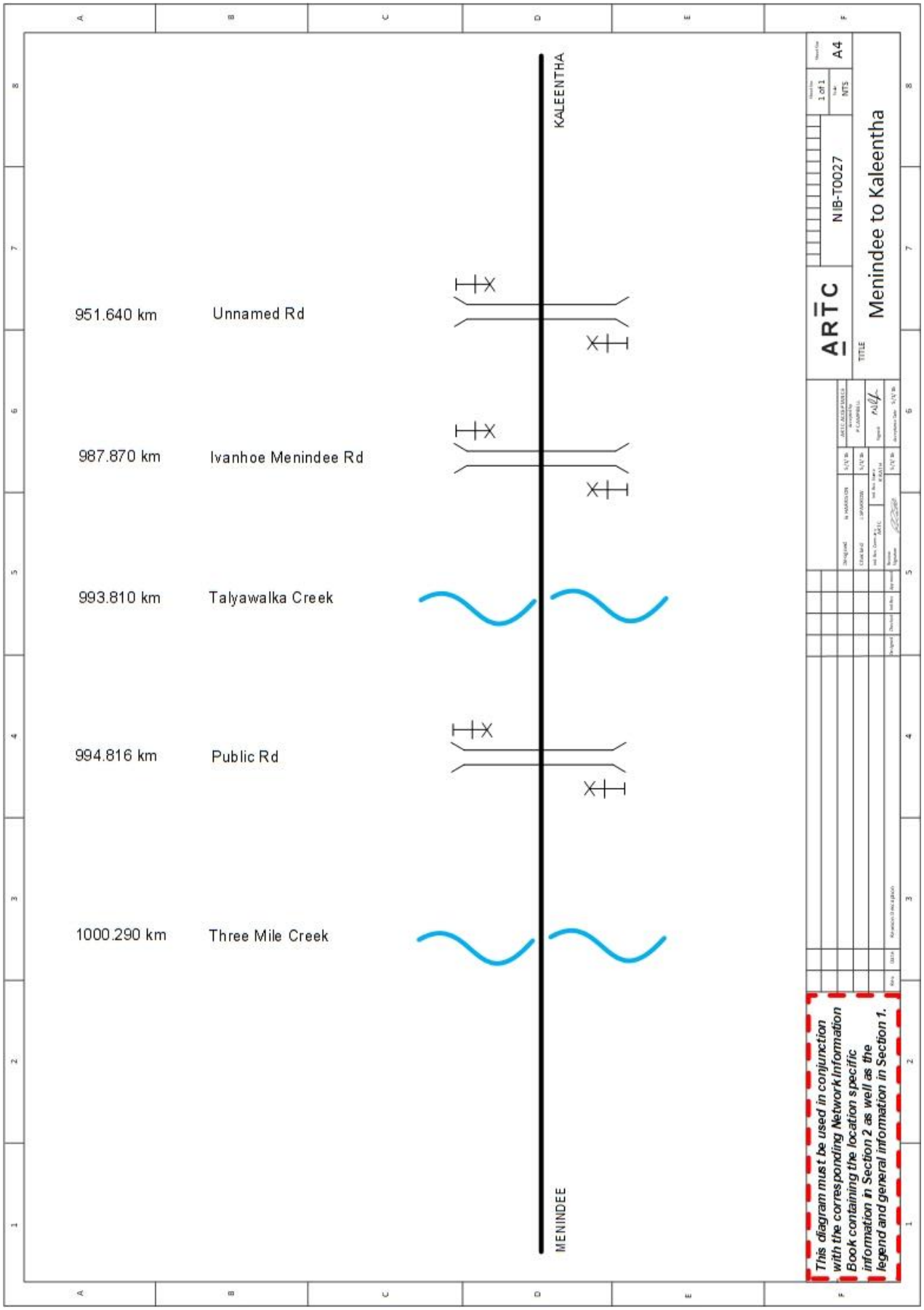
Emergency switches are provided to isolate the warning equipment in the event of a failure. The 'Emergency Switch Box' is located on the Level Crossing Equipment Hut and is opened by the keys obtained from the ARTC Provisioning Centre at Menindee. The Level Crossing warning equipment must be operated in accordance with ARTC Network Rules & Procedures ANGE 218 'Type F Level Crossing Management', ANPR 715 'Protecting Type F Level Crossings' and ANPR 717 'Using Emergency Roadside Warning Equipment'.

Manual Operation of Level Crossing Warning Equipment

A manual operation switch is provided on the outside of the Level Crossing Equipment Hut. The manual operation switch is unlocked by SL key and provided for use by qualified workers in accordance with ARTC Network Rules and Procedures ANGE 218 'Type F Level Crossing Management', ANPR 715 'Protecting Type F Level Crossings' and ANPR 717 'Using Emergency Roadside Warning Equipment'.

Note: Roads to this location only accessible by 4WD


1012.255 km
1009.893 km
1009.119 km
1009.069 km
1008.225 km
1007.990 km
1007.570 km
1007.503 km
1007.300 km
1006.960 km
1006.910 km
1006.895 km
1006.860 km
1006.836 km
1006.015 km
1006.020 km
1005.740 km
1005.600 km
1004.800 km
1004.673 km
1004.300 km
1002.108 km
XPT
145
115
85
80
60
30
F
X
A
Menindee Broken Hill Rd
Racecourse Rd
Darling River
Wilcannia-Menindee Rd
CATCH POINTS
CATCH POINTS
FRAME E
FRAME B
FRAME F
FRAME A
GOODS SIDING
LOOP LINE (1145m)
MAIN LINE
STATION
YARD LIMIT
MENINDEE
SHUNT LIMIT
KINALUNG
KALEENTHA
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.
ARTC
NIB-T0028
1 of 1
NTS
A3
TITLE
Menindee


KALEENTHA
951.640 km
Unnamed Rd
987.870 km
Ivanhoe Menindee Rd
993.810 km
Talyawalka Creek
994.816 km
Public Rd
1000.290 km
Three Mile Creek
MENINDEE
ARTC
NIB-T0027
Menindee to Kaleentha
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.4 Kaleentha (KLE)

General Arrangements

Kaleentha is a crossing location.

Operation of Points and Mainline Indicators

Power-operated points A and B are self-normalising motor points and will automatically return to normal 30 seconds after the rear of the train has:

- either arrived in clear in the loop line, provided that the rear of the train is past the AL or BL dwarf colour light indicator
- or passed the main line indicator when departing the loop line.

The points are controlled by track circuit and cannot be moved unless the track(s) controlling the points is unoccupied.

The main line indicators will clear automatically for the main line on the approach of a train, provided that all points are correctly set, no opposing train is approaching, and the tracks are unoccupied.

The other interlocked points are operated by a ground frame.

Locking

Type	Provided
Approach	Yes
Route	No

Operation of Power Operated Points in an Emergency

Points A and B, located at each end of the loop line, are power-operated.

If these points fail to operate correctly, the train crew 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.

Signalling Power Supply Indicators

Power supply indicator lights are provided on an indicator panel in the operations hut for the signalling power supplies at Kaleentha.

Group headed “Power supply”

The green “Power supply normal” indication will be displayed when all the normal AC power supplies are available.

The yellow “Power supply warning” indication will be displayed when any of the following conditions occurs:

- there is a complete loss of the AC power supply
- there is a partial loss of any channel of the DC supplies the earth leakage detector on the AC or DC supply has operated or fuel for the motor generator has reached a low level.

The red “Power supply fail” indication will be displayed when a complete loss of both channels of any DC supply occurs.

Group headed "Generator"

The yellow "Emergency power supply in use" indication will be displayed when the emergency AC power supply is in use. If this light goes out at any time and the red "Generator fail" indication is not displayed, it shows that the fuel level has become low.

The red "Generator fail" indication will be displayed when the standby motor/alternator plant has failed to start or has shut down under load.

General Instructions

An alarm is provided to warn of any alteration to the power supply and the alteration must be acknowledged by depressing the "Alarm cancel" pushbutton.

When there is any alteration or interruption to the AC or DC power supplies to the signalling, the Train Controller must promptly arrange for the Signals maintenance representative to be informed.

A notice sign inscribed: "If buzzer sounds, report failure to Train Controller and indicate what lamp is showing. To silence buzzer, press Alarm cancel pushbutton", is provided below the indicator panel.

The opening of the operations hut door will cause the audible alarm to activate if a failure condition has occurred. In this case, the "Alarm cancel" pushbutton must be depressed and the fault reported to the Train Controller.

Signal lamp indicators

A yellow indicator light inscribed "Filament fail" will be displayed when a partial failure of an indicator lamp is detected.

A red indicator light inscribed "Lamp fail" will be displayed when a total failure of an indicator lamp is detected.

When either of the indicator lights is displayed, the Train Controller must be informed and arrange for the Signals maintenance representative to be informed.

Ground Frame

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

Frame C is unlocked by the operator's keys.

Operators Push Button Units

Operator's pushbutton units secured by an SL lock are provided:

- near Down main line indicator X to operate the indicator and points for a Down train to enter the loop line
- and Up main line indicator Y to operate the indicator and points for a Up train to enter the loop line.

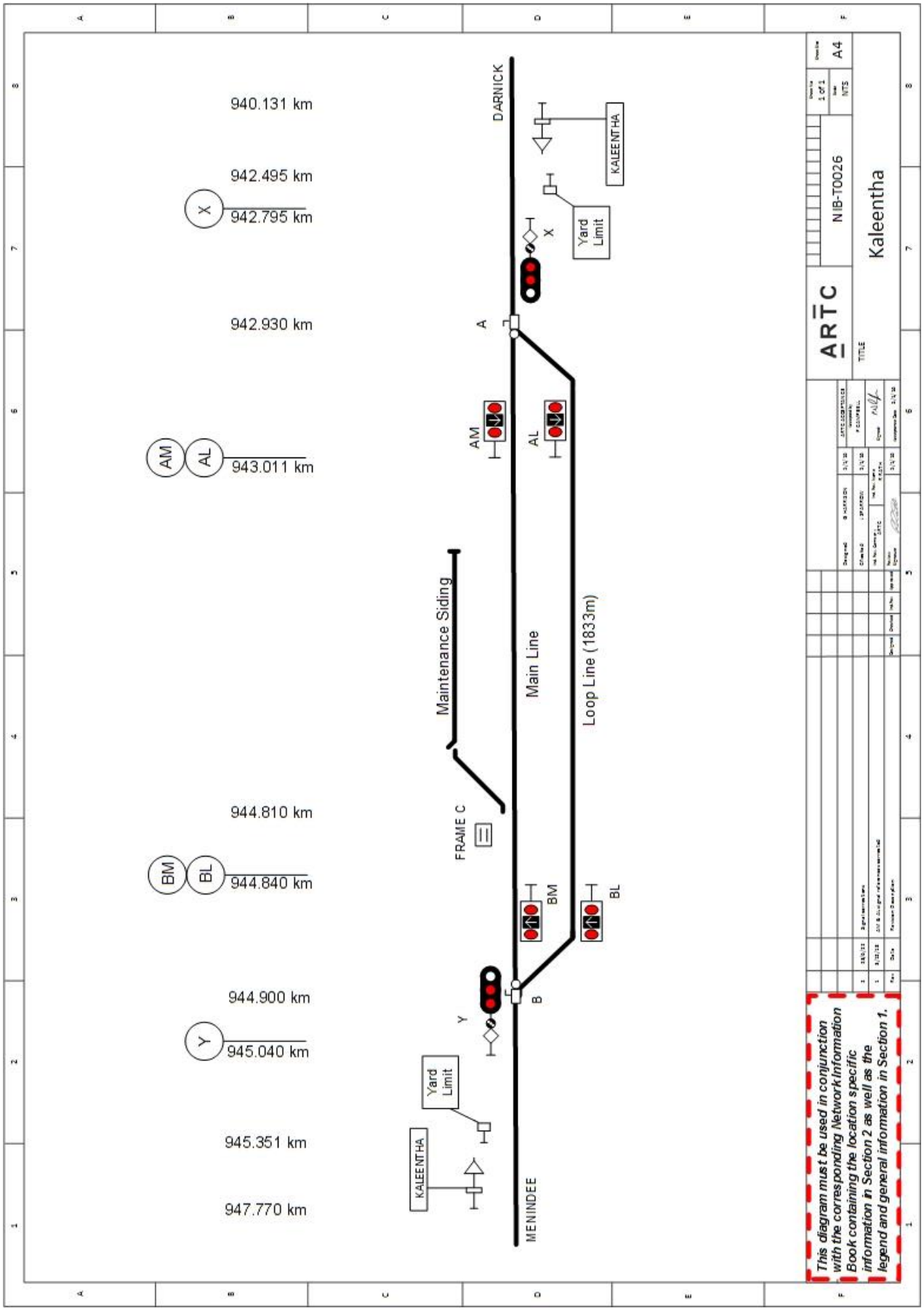
The pushbutton units are released by inserting an operator's key in the operator's lock and turning it.

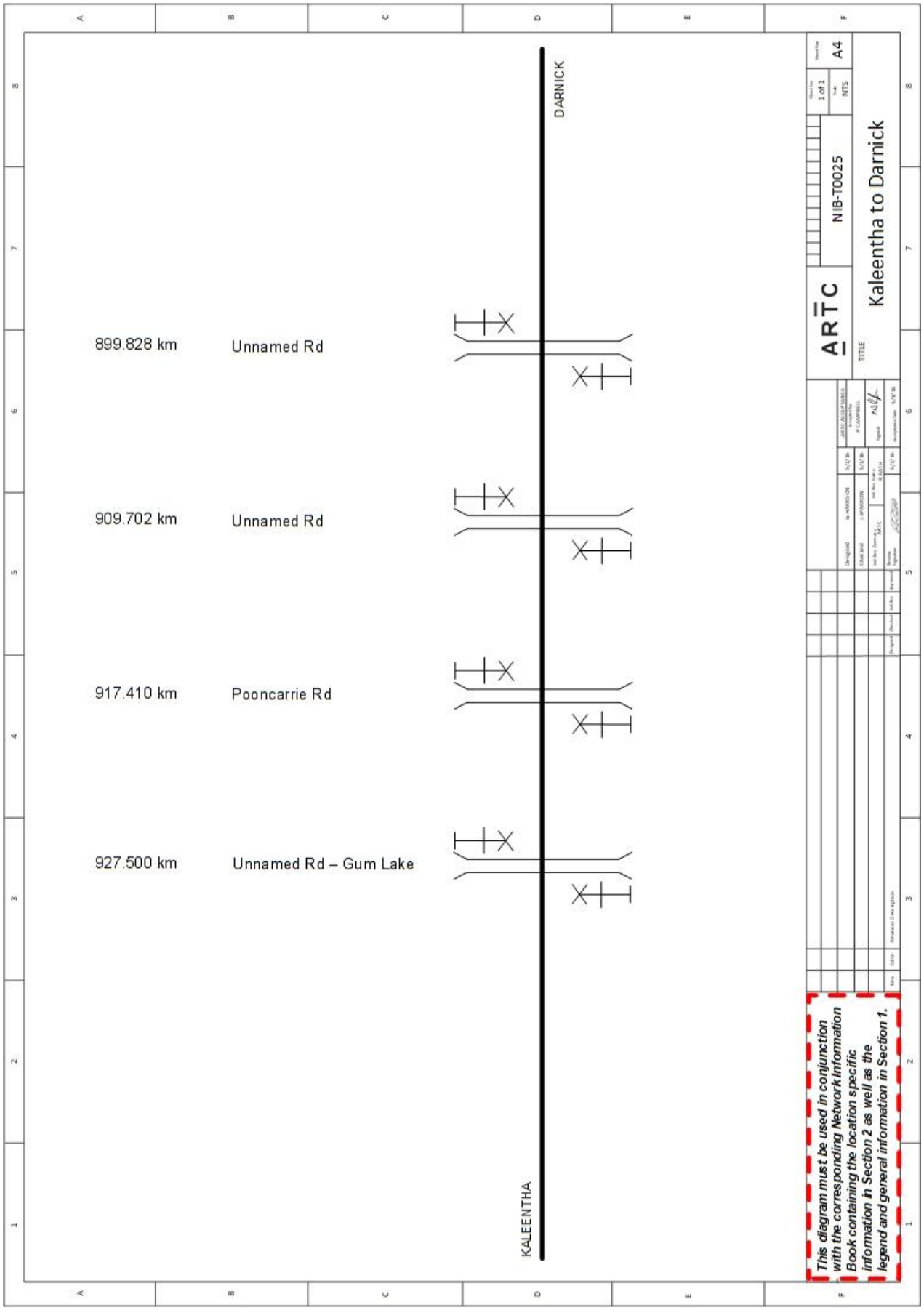
If, after the operation of any of the pushbuttons, it is decided not to proceed with the movement, the "Cancel" pushbutton must be depressed. This will place the applicable indicator at stop.

The operator's pushbutton units contain the following equipment:

- an operator's key contact lock
- two green buttons to set the points and clear the appropriate indicator
- a red button inscribed "Cancel"
- and a green light inscribed "points free".

Note: Roads to this location only accessible by 4WD


940.131 km
942.495 km
X
942.795 km
942.930 km
AM
AL
943.011 km
944.810 km
BM
BL
944.840 km
944.900 km
Y
945.040 km
945.351 km
947.770 km
DARNICK
KALEENTHA
Yard Limit
X
A
AM
AL
Maintenance Siding
Main Line
Loop Line (1833m)
FRAME C
BM
BL
B
Y
Yard Limit
KALEENTHA
MENINDEE
NIB-T0026
Kaleentha
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.


DARNICK
KALEENTHA
899.828 km
Unnamed Rd
909.702 km
Unnamed Rd
917.410 km
Pooncarrie Rd
927.500 km
Unnamed Rd – Gum Lake
ARTC
NIB-T0025
Kaleentha to Darnick
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.5 Darnick (DNK)

General Arrangements

Darnick is a crossing location.

Operation of Points

All interlocked points at Darnick are operated from ground frames.

Ground Frames

Frames A and C

Frames A and C are located on the Up side of the main line adjacent to the points and provide access to the Up siding.

Frame A is unlocked by Annett key from lever AA, which is released by operator's keys.

Frame C is unlocked by Annett key from triplex lock BC, which is released by operator's keys.

Frames B and D

Frames B and D are located on the down side of the main line adjacent to the points and provide access to the loop line.

Frame B is unlocked by Annett key from triplex lock BC, which is released by operator's keys.

Frame D is unlocked by operator's keys.

Crossing of Long Trains (Greater than 900 metres)

When long trains (greater than 900m) are required to be crossed, the first train to be admitted must be the one from Kaleentha and it should proceed to frame C.

The Qualified Worker must have two operator's keys and proceed to triplex lock BC (near frame C) and use the operator's keys to unlock the triplex lock and release the two Annett keys.

On arrival at frame C, the Qualified Worker must unlock frames B and C and set the points for frame B in the reverse position, before shunting the train into the Up siding.

When the first train has been shunted into the Up siding and the rear of the train is clear of the points for frame D, the Qualified Worker must proceed to frame B and wait for the arrival of the crossing train. When the train arrives, the Qualified Worker will join the train and proceed to the points at the Kaleentha end where the train will stop.

If the train is to proceed, the Qualified Worker will detrain, unlock frame D, and set the points in the reverse position for the crossing train to proceed according to the authority held.

When the rear of the train clears the points for frame the points must be set in the normal position and the frame locked. When the Down train has departed the interlocking, the Driver of the train in the Up siding must be contacted and advised to set back clear of the points for frame C.

When the train is clear of the points, the points for frames B and C must be returned to normal and the frames locked.

When the points are returned to the normal position and the frame locked, the train is to proceed according to the authority held.

Shunting Limit Signs

Shunting limit signs are provided in both the Up and the Down directions to define shunting limits.

Pooncarrie Road Level Crossing

The level crossing warning equipment is automatically controlled by conventional track circuit equipment.

The infrastructure consists of the following:

- Boom gate mechanisms, Type F flashing light assemblies and warning bells
- Level crossing hut (on Ivanhoe side of crossing on up side of line)
- Main Line Indicators at the level crossing with MLI Push Button boxes
- Duplex Locks at Frame A and Frame D
- Shunter's Push Button boxes at Frame B and Frame C
- Approach warning signs
- Manual Operation Switch, Test Switch box and Emergency Switch box (located on the side of the level crossing hut)

Location of Level Crossing Approach Warning Signs

- Down direction 879.507km.
- Up direction 881.949km.

Main Line Indicators and Push Buttons

A Main Line Indicator, 'X' MLI is installed at 880.805km on the main line facing to up trains.

'Clear' and 'Cancel' push buttons for 'X' MLI are located in the box mounted on 'X' MLI and locked by an SL lock. 'X' MLI will normally display a pulsating white proceed aspect but will be placed at stop when Duplex Lock D or Triplex Lock BC is operated. 'X' MLI when displaying a pulsating white proceed aspect also indicates that 'A', 'B' and 'C' points are set for main line running.

A Main Line Indicator, 'Y' MLI will be installed at 880.665km on the main line facing to down trains. 'Clear' and 'Cancel' push buttons for 'Y' MLI are located in the box mounted on 'Y' MLI and locked by an SL lock. 'Y' MLI will normally display a pulsating white proceed aspect but will be placed at stop when Duplex Lock A or Triplex Lock BC is operated. 'Y' MLI when displaying a pulsating white proceed aspect also indicates that 'B', 'C' and 'D' points are set for main line running.

Existing 'A' MLI will have a new yellow proceed aspect installed which will be displayed when 'Y' MLI is displaying a red stop aspect. 'A' MLI when displaying a pulsating white proceed aspect indicates that 'A' points are set for main line running and 'Y' MLI is displaying a pulsating white proceed aspect.

Existing 'D' MLI will have a new yellow proceed aspect installed which will be displayed when 'X' MLI is displaying a red stop aspect. 'D' MLI when displaying a pulsating white proceed aspect indicates that 'D' points are set for main line running and 'X' MLI is displaying a pulsating white proceed aspect.

These indications are in accordance with ARTC Network Rules & Procedures ANSG 604.

Duplex Locks

A duplex lock will be installed adjacent to Signal Equipment Location ‘A’. The existing Operators Lock installed on Lever AA will be replaced with a Fortress Lock. The top lock of the duplex lock will accept an Operators Key and will release the Fortress Key in the bottom lock. The Fortress Key will unlock Lever AA at the derail.

A duplex lock will be installed to Signal Equipment Location ‘D’. The existing Operators Lock installed on lever 1 of Frame D will be replaced with a Fortress Lock. The top lock of the duplex lock will accept an Operators Key and will release the Fortress Key in the bottom lock. The Fortress Key will unlock lever 1 of the ground frame.

The operating procedure for existing Triplex Lock BC will remain unchanged however this lock will be electrically interlocked with the level crossing equipment.

Operational Requirements

For trains travelling in the up direction, ‘X’ MLI will show pulsating white aspect and the level crossing warning equipment will activate once the train occupies the up approach section adjacent to the up driver’s level crossing warning board. The level crossing will cease to operate when the train clears the level crossing.

For trains travelling in the down direction, ‘Y’ MLI will show pulsating white aspect and the level crossing warning equipment will activate once the train occupies the down approach section adjacent to the down driver’s level crossing warning board. The level crossing will cease to operate when the train clears the level crossing.

For shunting trains operating on the up direction approach track circuit to Pooncarrie Road level crossing, ‘X’ MLI is to be cancelled during shunting. This MLI can be cancelled by operating Duplex lock D or Triplex Lock BC or by using the cancel button provided at the MLI.

For shunting trains operating on the down direction approach track circuit to Pooncarrie Road level crossing, ‘Y’ MLI is to be cancelled during shunting. This MLI can be cancelled by operating Duplex lock A or Triplex Lock BC or by using the cancel button provided at the MLI.

For trains in the loop wanting to pass over the level crossing to depart the loop onto the main line, the driver must stop at the stop sign on the western side of the level crossing, set Frame B points for the loop then operate the ‘Start’ button in the Shunter’s Push Button box located adjacent to Frame B. The level crossing will then operate and when the booms have fully descended the train can cross the level crossing onto the main line. The level crossing will cease to operate when the train clears the track circuit equipment over the level crossing and Frame B points.

For trains in the siding wanting to pass over the level crossing to depart the siding onto the main line, the driver must stop at the stop sign on the eastern side of the level crossing, set Frame C points for the siding then operate the ‘Start’ button in the Shunter’s Push Button box located adjacent to Frame C. The level crossing will then operate and when the booms have fully descended the train can cross the level crossing onto the main line. The level crossing will cease to operate when the train clears the track circuit equipment over the level crossing and Frame C points.

If ‘X’ MLI or ‘Y’ MLI are displaying a stop indication to an approaching train, the level crossing will not operate and the driver must bring the train to a stop at the MLI. The driver can then operate the button labelled ‘clear’ in the MLI push button box. The level crossing will then operate and when the booms have fully descended the MLI will clear.

Level Crossing Monitoring

The level crossing is monitored by Network Control Centre South.

Failure of the Cerberus Monitoring Equipment

In the event of a failure of the Cerberus monitoring equipment a daily testing must be implemented in accordance with ARTC Network Rules & Procedures ANGE 218.

A ‘Test’ switch box is located on the outside of the Level Crossing Equipment Hut and is opened by the test key obtained from the ARTC Provisioning Centre at Ivanhoe.

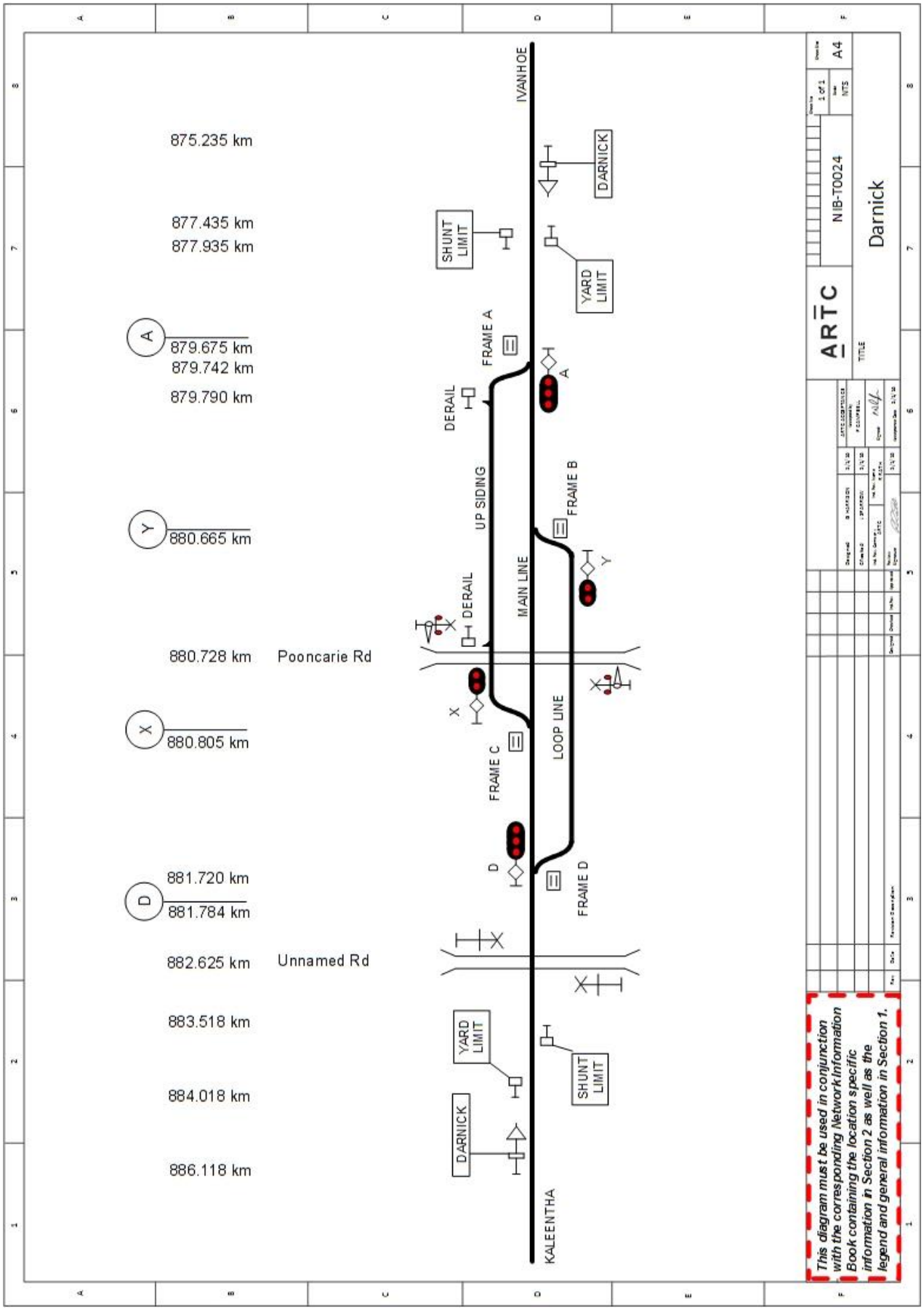
Emergency Operation of the Level Crossing Warning Equipment

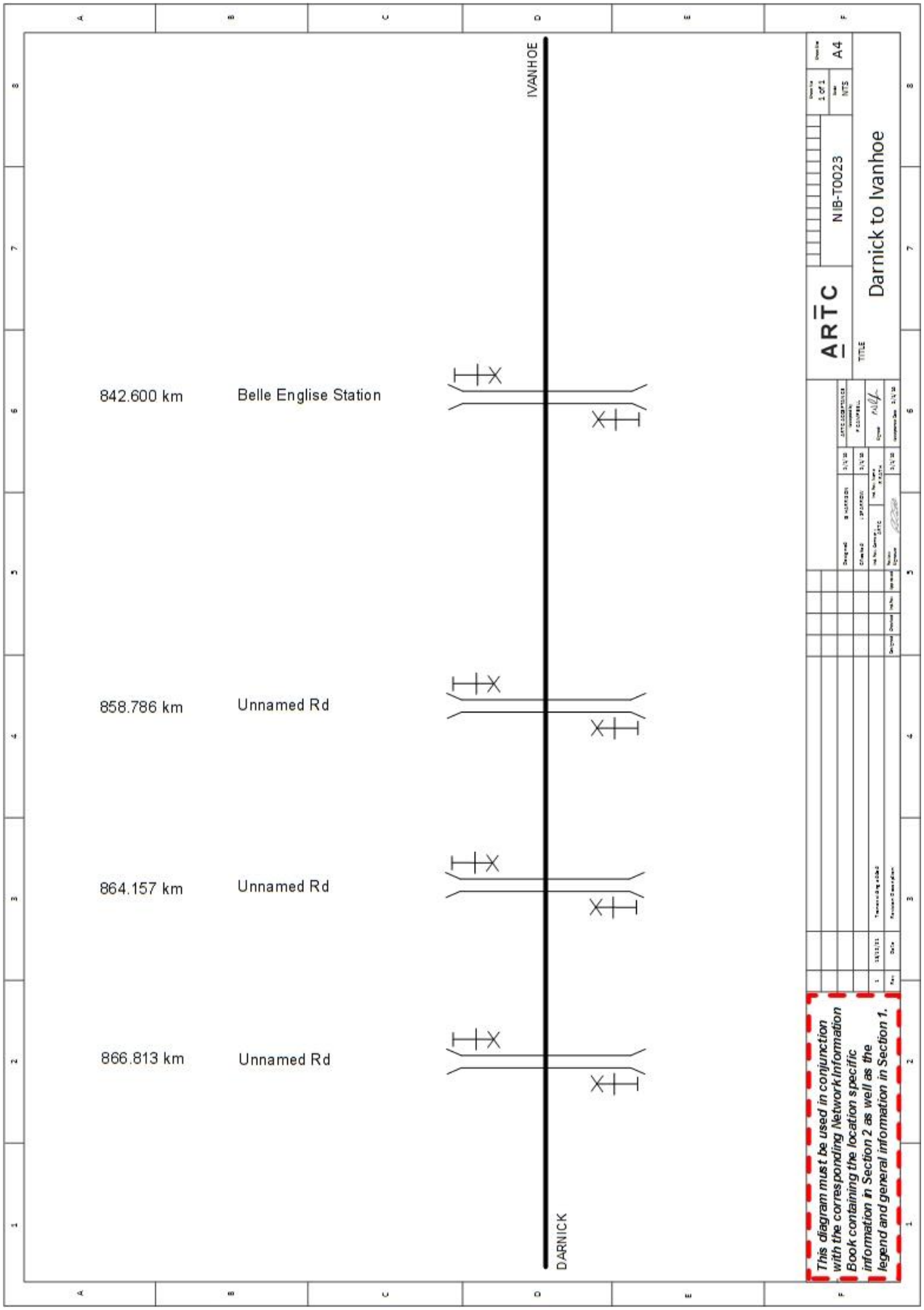
Emergency switches are provided to isolate the warning equipment in the event of a failure. The ‘Emergency Switch Box’ is located on the Level Crossing Equipment Hut and is opened by the keys obtained from the ARTC Provisioning Centre at Ivanhoe. The warning equipment must be operated in accordance with the ARTC Network Rules and Procedures.

Manual Operation of Level Crossing Warning Equipment

A manual operation switch is provided in a box secured by an SL Lock, located on the outside of the Level Crossing Equipment Hut. The manual operation switch is provided for use by qualified workers in accordance with ARTC Network Rules & Procedures.

Note: Roads to this location only accessible by 4WD


IVANHOE
875.235 km
877.435 km
877.935 km
879.675 km
879.742 km
879.790 km
880.665 km
880.728 km
Pooncarie Rd
880.805 km
881.720 km
881.784 km
882.625 km
Unnamed Rd
883.518 km
884.018 km
886.118 km
KALEENTHA
DARNICK
SHUNT LIMIT
YARD LIMIT
FRAME A
DERAIL
UP SIDING
MAIN LINE
FRAME B
LOOP LINE
FRAME C
FRAME D
A
Y
X
D
ARTC
NIB-T0024
Darnick
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.


IVANHOE
842.600 km
Belle Englise Station
858.786 km
Unnamed Rd
864.157 km
Unnamed Rd
866.813 km
Unnamed Rd
DARNICK
ARTC
TITLE
Darnick to Ivanhoe
NIB-T0023
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.6 Tronox (TMA)

General Arrangements

Tronox is a private siding location.

The siding will hold a train of 918m in total length.

The siding allows for shunting and loading of trains.

The C points at Tronox are electronic operated and are installed at 822.814km.

Main Line Indicator “C” is located at 822.820km for Up direction rail traffic movements on the main line at the entry to the siding. Main Line Indicator “T” is located at 822.730km for Down direction rail traffic movements on the main line. Main Line Indicator “CS” is located within the siding at 822.730km to exit of the siding.

“C” and “CS” MLIs have a driver’s pushbutton located next to them to operate the MLI for different movements.

The driver’s pushbuttons are secured by an SL lock.

Operation of Points

C driver’s pushbutton panel contains three push buttons (Main Clear, Siding Clear and Indicator cancel).

CS drivers pushbutton panel contains two push buttons (Main Clear and Indicator cancel). To enable operation of the push buttons the operator’s key must be inserted and turned in the slot provided.

An LED labelled “Points Free” is provided in C and CS pushbutton panels to indicate that the points are free to operate.

C and T MLI’s display pulsating white aspects when C Points are detected in the normal position, loss of detection will place the MLI’s to the STOP position.

CS MLI and C display pulsating white aspect and right hand band of lights respectively when C Points are detected in the reverse position. The loss of C points reverse detection will place both MLIs to the STOP position.

C Points will be proved locked in C and T MLI aspects. All MLIs at Tronox will not use track locking however, C MLI right hand band of lights will revert back to the red aspect after the passage of a train to allow for the point auto normalising function to activate appropriately.

C Points will be motor worked and controlled via push buttons provided at C MLI and CS MLI. Normal operation of the points will be from the push buttons

C points are provided with auto self-normalising on the points and will restore to the normal position after rail traffic travels into or out of the siding 45 seconds after the rail traffic clears the point.

The electric points are fitted with manual “handthrow” 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 be obtained from the EOL box fitted to the outer wall of the respective interlocking location located near the points. Manual operation of the points is described in Network Procedure ANPR 743 Manually Operating Handthrow Points.

Through Movements

The MLIs will 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 conditions are satisfied.

When the pulsating white indications are displayed this will allow “through” rail traffic to pass through Tronox at permitted permanent track speed on the main line.

Entry into the Siding

For movements into the siding, the rial traffic must be stopped at C MLI. Press the “Cancel” button to place the opposing MLIs to STOP. Following the expiry of 2 minutes the points will become free to operate for the siding. The Competent Worker must ensure that the “Points Free” light is displayed and then press the “Siding Clear” button. Once the points have operated to the reverse position, the point’s free indication will be extinguished and the turnout indicator on the MLI will display angled white lights allowing movement into the siding.

To cancel the movement into the siding, press “Indicator Cancel” button, which will result in the white angled lights being extinguished. The points will self-restore to the normal position once they become free. After the points have restored to the normal position, pressing of the “Main Clear” button the MLI will provide a pulsating white aspect.

Exit from the Siding

To exit the siding, press the “Indicator Cancel” button provided in the drivers pushbutton panel near CS MLI. This will place CS MLI to STOP and after a 2 minute time delay, will release the points. The points free indicator will flash. Press the “Indicator Clear” button provided on the pushbutton panel, once the points have operated to the reverse position, the CS MLI will then display a pulsating white aspect allowing the movement onto the main line.

To cancel the movement out of the siding, press “Indicator Cancel”, this will result in extinguishing of the CS MLI and the display of the STOP aspect on the MLI. The points will self-restore to the normal position once they become free. Press “Main Clear” at the C pushbutton, to restore the Main Line Indicator to a pulsating white aspect.

NOTE; Roads to this location are only accessible by 4WD

2.7 Ivanhoe (IVN)

General Arrangements

Ivanhoe is a crossing location in train order territory and is provided with a 2019m crossing loop.

The points at each end of the crossing loop are power operated. A points (Parkes end) are located at 816.124km. B points (Broken Hill end) are located at 818.303km.

Main line indicator “A” is located near the points on the Down side of the line at the Parkes end of the yard. Main line indicator “B” is located on the Up side of the line at the Broken Hill end of the yard. Main line indicators “X” and “Y” are located within the crossing loop at the Parkes end of the yard with “X” being wrong sided. Main line indicators “W” and “Z” are located within the crossing loop at the broken Hill end of the yard. Main Line Indicator “V” is located on the Parkes side of Balranald Rd level crossing.

All MLIs have a push button panel located closely to operate the MLI for different movements. X MLI has two push button panels, one located closely to the MLI and another, located on the platform.

Push button panels are secured by an SL lock.

Maintenance Siding

A maintenance siding is provided at Ivanhoe. This siding can only be accessed from the Parkes end of the crossing loop via mechanical frame C. This two lever frame consists of a FPL lever and a points lever. The FPL lever is released with an operator’s key.

Operation of Points

A and B push button panels contain three push buttons (Main Clear, Loop Clear and Indicator cancel), X, Y, X (on platform), W, Z and V push button panels contain two push buttons (Main Clear and Indicator cancel) to enable operation of the push buttons the operator’s key must be inserted and turned in the slot provided.

A LED labelled “Points Free” is provided in A, X, Y, B, W, Z pushbutton panels to indicate that the points are free to operate.

The normal indications of A, B, X and W MLIs are pulsating white, allowing trains to proceed into Ivanhoe on the main line provided all conditions are met.

The points are provided with a self-normalising feature. When set in the reverse position after a train has occupied and then is clear of the point track circuit, the points will return to the normal position, after a time delay of 30 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 hut 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 conditions are satisfied.

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

Entry into the Loop Line

For movements into the loop line, the train must be brought to a stand short of A or B MLI. Press the “Cancel” button to replace the opposing MLIs to Red. Following the expiry of 2 minutes the points will become free to operate for the loop. The qualified 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. At A MLI, Cobb Highway crossing will operate for fifteen seconds before the turnout indication is given.

To cancel the movement into the loop, press “Indicator Cancel” button, which will result in the white angled lights being extinguished. The points will be self-restored 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 Line

To exit the loop line, first press the “Indicator Cancel” button provided in the push button panel near the MLI. This will result in replacement of the MLI to red and after a 2 minute time delay, will release the points. The points free indicator will flash. Press the “Loop Clear” button provided on the pushbutton panel, once the points have moved and detected, the MLI will then display a pulsating white allowing movement onto the main line.

To cancel the movement out of the loop, press “Indicator Cancel”, this will result in extinguishing of the MLI and the display of the red aspect on the MLI. 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.

Cobb Highway Level Crossing

Type F Flashing Lights and bells are provided at Cobb Highway Rd Level Crossing at 816.098km.

The level crossing is protected by main line indicator “A” for trains travelling in the Down direction and main line indicators “X” and “Y” in the Up direction. These Main Line Indicators are normally clear and indicates that the level crossing warning equipment will operate on the approach of a train.

Shunter’s pushbuttons inscribed “Level Crossing Start” and “Level Crossing Cancel” are provided on each side of the level crossing. The health of the level crossing will be indicated by “A”, “X” and “Y” MLIs

The warning indications to road users will be cancelled automatically when the rear of the train has cleared the level crossing.

The shunter’s pushbuttons must be kept closed and secured by an SL lock when not in use.

Balranald Road Level Crossing

Type F Flashing Lights and bells are provided at Balranald Rd Level Crossing at 818.935km.

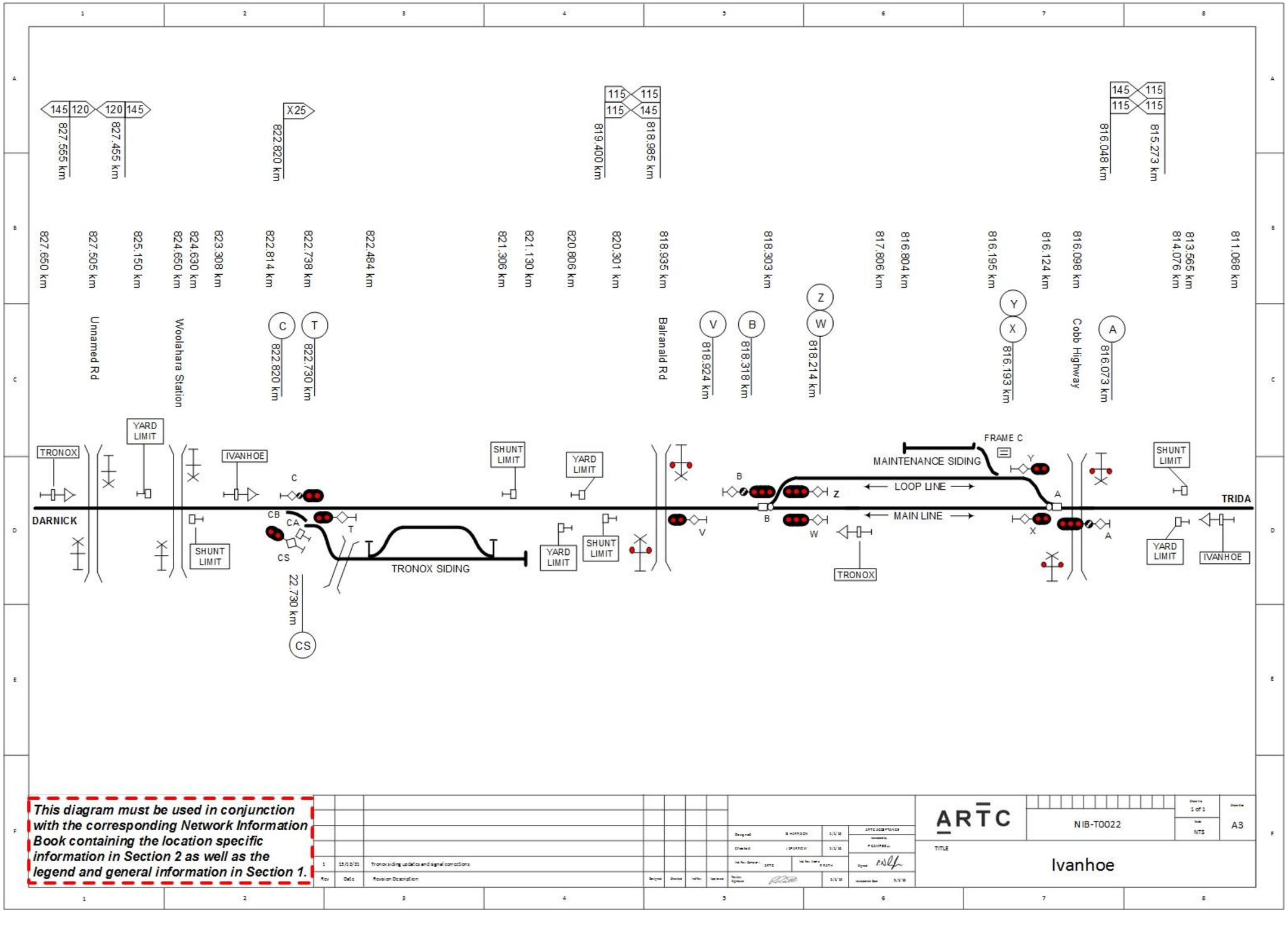
The level crossing is protected by main line indicator “V” for trains travelling in the Down direction. This Main Line Indicator is normally clear and indicates that the level crossing warning equipment will operate on the approach of a train.

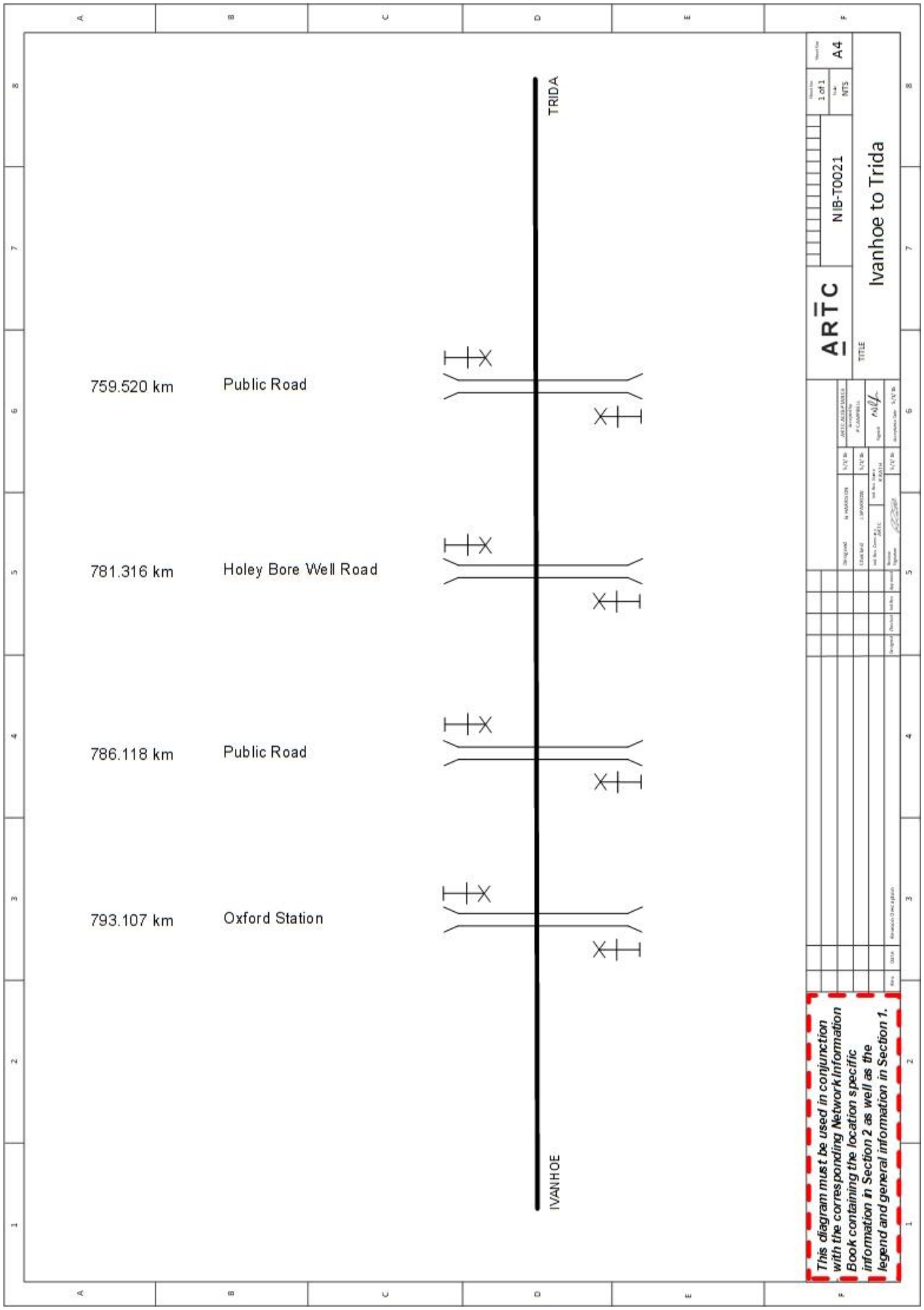
Locations of Train Order Signs

The following table shows the location of the train order working signs at Ivanhoe.

Sign ID	Sign Location
Down Location Sign	811.068km
Down Yard Limit Sign	813.565km
Up Shunt Limit Sign	814.076km
Down Shunt Limit Sign	820.301km
Up Yard Limit Sign	820.806km
Up Location Sign	823.308km

Note: Roads to this location only accessible by 4WD


145 120
827.555 km
120 145
827.455 km
X25
822.820 km
115 115
115 145
819.400 km
818.985 km
145 115
115 115
816.048 km
815.273 km
811.068 km
813.565 km
814.076 km
816.098 km
Cobb Highway
816.073 km
816.124 km
816.195 km
Y
X
816.193 km
818.214 km
Z
W
816.804 km
817.806 km
818.303 km
B
818.318 km
V
818.924 km
818.935 km
Balranald Rd
820.301 km
820.806 km
821.130 km
821.306 km
822.484 km
822.738 km
T
822.730 km
C
822.820 km
822.814 km
823.308 km
824.630 km
824.650 km
Woolahara Station
825.150 km
827.505 km
Unnamed Rd
827.650 km
YARD LIMIT
TRONOX
IVANHOE
SHUNT LIMIT
DARNICK
C
CB
CA
CS
T
22.730 km
CS
TRONOX SIDING
SHUNT LIMIT
YARD LIMIT
SHUNT LIMIT
V
B
Z
W
FRAME C
MAINTENANCE SIDING
Y
LOOP LINE
MAIN LINE
A
X
A
TRONOX
SHUNT LIMIT
TRIDA
YARD LIMIT
IVANHOE
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.
1 15/12/21 Tronox siding updates and signal corrections
Rev Date Revision Description
ARTC
NIB-T0022
1 of 1
NTS
A3
TITLE
Ivanhoe


TRIDA
759.520 km
Public Road
781.316 km
Holey Bore Well Road
786.118 km
Public Road
793.107 km
Oxford Station
IVANHOE
ARTC
NIB-T0021
Ivanhoe to Trida
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.8 Trida (TRD)

General Arrangements

Trida is a crossing location.

Goods Siding

A goods siding is provided at Trida. This siding can only be accessed from the Ivanhoe end of the crossing loop via mechanical frame C. This two lever frame consists of a FPL lever and a points lever. The FPL lever is released with an operator's key.

Main Line Indicators and Push Buttons

Main Line Indicator, 'X' MLI is installed at 749.523km facing to up main line trains. 'Clear' and 'Cancel' push buttons for 'X' MLI are located in a box mounted on 'X' MLI and locked by an SL lock. This MLI will replace the existing AM Point Indicator located at the same position.

Main Line Indicator, 'Y' MLI is installed at 749.523km facing to up loop line trains. 'Clear' and 'Cancel' push buttons for 'Y' MLI are located in a box mounted on 'Y' MLI and locked by an SL lock. This MLI will be located on the right hand side of the loop line and will replace the existing AL Point Indicator located immediately adjacent on the left side of the loop line.

'A' MLI is located at 749.311km

'B' MLI is located at 751.579km

'B' MLI has a yellow proceed aspect installed which will be displayed when 'X' MLI ahead is displaying a red stop aspect. These indications are in accordance with ARTC Network Rules & Procedures ANSG 604.

A Shunter's Push Button box will be installed on the level crossing equipment hut and will contain 'Start' and 'Cancel' push buttons for the level crossing equipment. This box will be locked by an SL lock.

All other interlocked points are operated by ground frames.

Operational Arrangements

For trains travelling in the Down direction the grade crossing predictor will determine the speed of the train and activate the level crossing warning equipment for the appropriate warning time. The maximum down approach warning time starts adjacent to the Down driver's level crossing warning board. 'A' MLI will show a pulsating white proceed aspect in the down direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For trains travelling in the Up direction the grade crossing predictor will determine the speed of the train and activate the level crossing warning equipment for the appropriate warning time. The maximum up approach warning time starts adjacent to the Up driver's level crossing warning board. 'X' MLI will show a pulsating white proceed aspect in the Up direction across the level crossing. The level crossing will cease to operate when the train clears the level crossing.

For down trains entering the loop through 'A' motor points, the level crossing will activate on approach. The 'A' MLI will be displaying a proceed aspect and the driver must bring the train to a stop at the MLI and operate the 'CANCEL' button in the 'A' MLI pushbutton box. The MLI will then show a stop aspect and the level crossing will cease to operate after a 2 minute time delay. Once the 'Points Free Light' illuminates, the driver can operate 'A' motor points by operating the 'LOOP' push button adjacent to 'A' MLI. 'A' points will operate to the reverse position, once the level

crossing booms are down ‘A’ MLI will display a pulsating white band of lights. Once the train proceeds into the loop and clears the level crossing the level crossing will cease to operate and ‘A’ motor points will auto-normalise.

For Up trains leaving the loop through ‘A’ motor points, the level crossing will activate once the train crew pushes the ‘LOOP’ button in the push button box adjacent to ‘Y’ MLI. ‘A’ points will operate to the reverse position, once the level crossing booms are down ‘Y’ MLI will display a pulsating white clear aspect. Once the train proceeds out of the loop and clears the level crossing the level crossing will cease to operate and ‘A’ motor points will auto-normalise.

If ‘A’ or ‘X’ or ‘Y’ MLI’s are displaying a stop indication to an approaching train, the level crossing will not operate and the driver must bring the train to a stop at the MLI. The driver can then operate the button labelled ‘CLEAR’ in the MLI push button box. The level crossing will then operate and when the booms have fully descended the appropriate MLI will clear.

Willandra Road Level Crossing

Type F Flashing Lights, booms and bells are provided at the Willandra Road level crossing at 749.390km.

The level crossing is protected by main line indicator “X” and loop line indicator “Y” for trains travelling in the Up direction. The main line indicator is normally clear and indicates that the level crossing warning equipment will operate on the approach of an Up train.

Operator’s pushbuttons inscribed “Level Crossing Start” and “Level Crossing Cancel” are provided in the pushbutton box mounted on the trackside wall of the level crossing equipment hut. They are to be used for entry into the loop in the Up direction or departure from the loop in the Down direction, or for a train stopping at the main line trailing point indicator on the Down direction.

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

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

Level crossing approach warning signs are located at:

- Down direction 747.927km
- Up direction 750.288km

Manual Operation Switch, Test Switch box and Emergency Switch box (located on the trackside wall of the level crossing hut)

The level crossing is monitored by Network Control Centre South.

Failure of the Cerberus Monitoring Equipment

In the event of a failure of the Cerberus monitoring equipment daily testing must be implemented in accordance with ARTC Network Rules & Procedures ANGE 218.

A ‘Test’ switch box is located on the outside of the Level Crossing Equipment Hut and is opened by the test key obtained from the ARTC Provisioning Centre at Ivanhoe.

Emergency Operation of the Level Crossing Warning Equipment

Emergency switches are provided to isolate the warning equipment in the event of a failure. The ‘Emergency Switch Box’ is located on the Level Crossing Equipment Hut and is opened by the keys obtained from the ARTC Provisioning Centre at Ivanhoe. The warning equipment must be operated in accordance with the ARTC Network Rules and Procedures.

Manual Operation of Level Crossing Warning Equipment

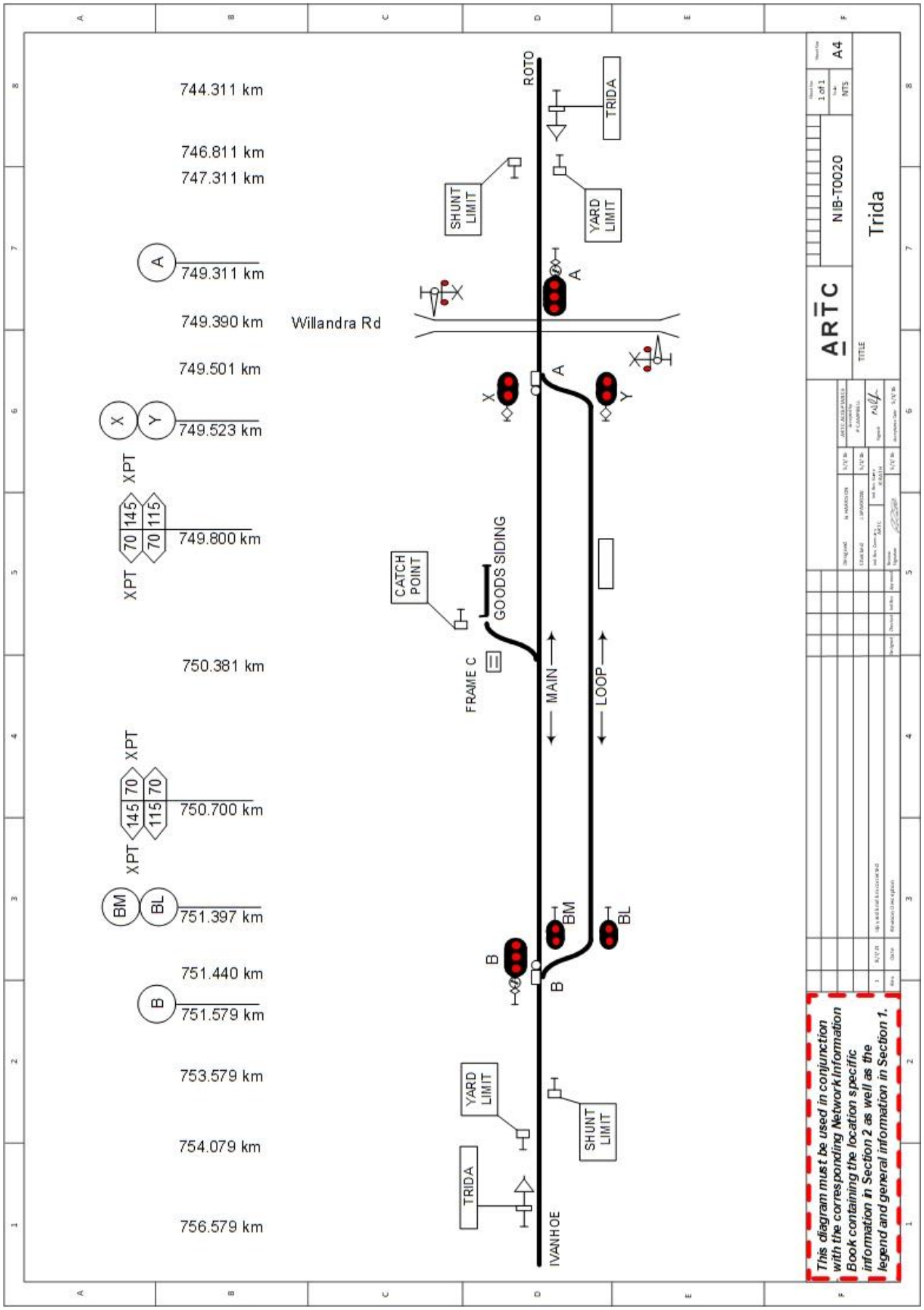
A manual operation switch is provided in a box secured by an SL Lock, located on the outside of the Level Crossing Equipment Hut. The manual operation switch is provided for use by qualified workers in accordance with ARTC Network Rules & Procedures.

Train Order Working Signs

The following table shows the location of the train order working signs at Trida

Sign ID	Sign Location
Down Location Sign	744.311km
Down ‘Yard Limit’	746.811km
Up ‘Shunt Limit’	747.311km
Down ‘Shunt Limit’	753.579km
Up ‘Yard Limit’	754.079km
Up Location Sign	756.579km

Note: Roads to this location only accessible by 4WD


744.311 km
746.811 km
747.311 km
A
749.311 km
749.390 km
Willandra Rd
749.501 km
X
Y
749.523 km
XPT
70 145
70 115
749.800 km
XPT
750.381 km
XPT
70 145
70 115
750.700 km
XPT
BM
BL
751.397 km
751.440 km
B
751.579 km
753.579 km
754.079 km
756.579 km
ROTO
TRIDA
SHUNT LIMIT
YARD LIMIT
CATCH POINT
GOODS SIDING
FRAME C
MAIN
LOOP
IVANHOE
NIB-T0020
Trida
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.9 Roto (RTO)

General Arrangements

Roto is a block location with no crossing facilities provided.

Special Instructions

- Train Orders must only be issued through Roto or to the Yard Limit sign at the arrival end in the direction of travel.
- A Train Order must not be issued authorising a train to occupy the main line between the Yard Limit signs unless the movement is part of a through order.
- Possession of the main line between Yard Limit signs may be authorised.

Note: Roads to this location only accessible by 4WD

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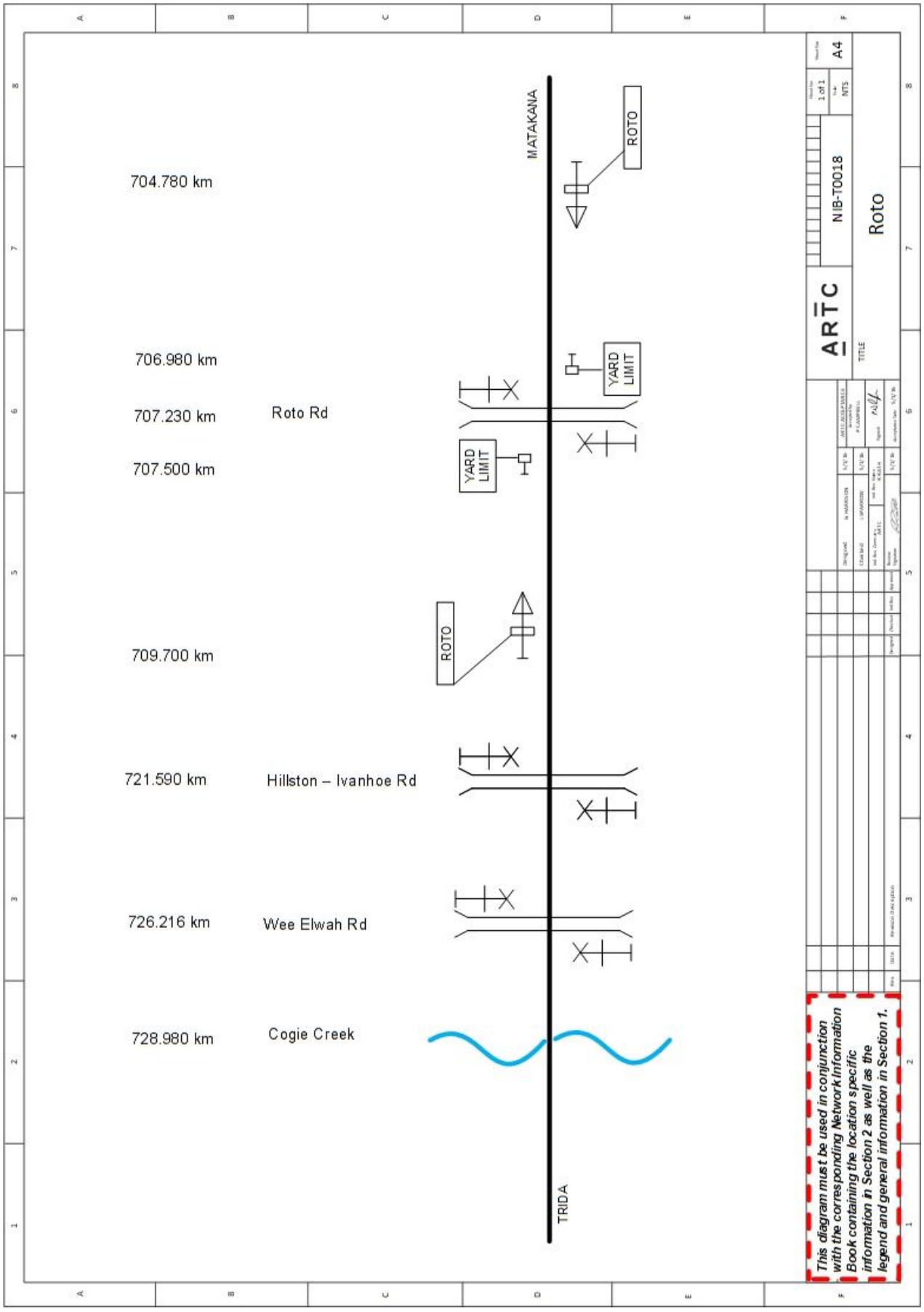

MATAKANA
ROTO
704.780 km
706.980 km
YARD LIMIT
707.230 km
Roto Rd
707.500 km
YARD LIMIT
ROTO
709.700 km
721.590 km
Hillston – Ivanhoe Rd
726.216 km
Wee Elwah Rd
728.980 km
Cogie Creek
TRIDA
A4
NIB-T0018
Roto
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.10 Matakana (MTK)

General Arrangements

Matakana is a crossing location in train order territory and is provided with an 1850 metre long crossing loop.

The points at each end of the crossing loop are power operated. Main line indicator “X” is located near the points on the Down side of the line at the Parkes end and main line indicator “Y” is located on the Up side of the line on the Broken Hill side of the Kidman Way Level Crossing. Trailing point indicators “AM” & “AL” are provided instead of clearance posts in the Up direction with trailing point indicators “BM” & “BL” provided instead of clearance posts in the Down direction.

The trailing point indicators will display either a “white arrow” aspect or two red lights depending on which way the points are set, the normal indication will be for the “AM” & “BM” indicators to be displaying a “white arrow” while “AL” & “BL” indicators will be displaying two red lights.

Push button panels are provided near the main line indicators (MLI's) and the trailing point indicators, the push button panels are secured by an SL lock.

Operation of Points and Main Line Indicators

The push button panels contain three push buttons (Indicator Clear, Indicator Cancel and Points Reverse); to enable operation of the push buttons the operator’s key must be inserted and turned in the slot provided. The push button panels near BL and Y MLI contain two more push buttons (Crossing Start and Crossing Cancel); to enable manual activation of crossing controls, for the stopping trains and during predictor failures.

A LED labelled “Points Free” is provided in the pushbutton panel to indicate that the points are free to operate. The normal indication of the MLI is pulsating white, allowing trains to proceed into Matakana on the main line. For movement into the loop line, the train should stop at the MLI. Pressing the “Cancel” button in the push button panel will replace the MLI and the trailing point indicator to red and after expiry of 2 minutes the points will become free to operate for the loop, at this point, if the train is to proceed on the Main Line, the “Indicator Clear” button must be pressed which will cause the MLI to again display pulsating white indication after locking the points to normal.

Once the “Points Reverse” button has been operated and the points detected in the reverse position, the points will lock again automatically and will be released after 3 minutes.

The points are provided with a self-normalising feature. When set in the reverse position after a train has occupied and then is clear of the point track circuit, the points will return to normal position, after a time delay of 30 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 hut 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 MLI's will normally display a pulsating white aspect and the main line trailing point indicator will display a white arrow, and when a train occupies the approach track circuit, the MLI will continue to display a pulsating white aspect and the trailing point indicator will continue to display a white arrow, provided all other conditions are satisfied.

When the pulsating white indication is displayed this will allow a "through" train to pass through Matakana at permitted full line speed on the main line as the trailing point indicator at the other end of the loop will be displaying a "White Arrow" aspect.

Entry into the Loop Line

For movements into the loop line, the train must be brought to a stand short of the MLI. Press the "Cancel" button to replace the opposing MLIs and the Main Line TPI to Red. Following the expiry of 2 minutes the points will become free to operate for the loop. The safeworking employee must ensure that the "Points Free" light is displayed and then press the "Points Reverse" button. Once the points have completed their movement, the point's free indication will be extinguished and the safeworking employee must then press the "Indicator Clear" button. The route turnout indicator on the MLI will then display a band of white lights allowing movement into the loop.

To cancel the movement into the loop, press "Indicator Cancel" button, which will result in the white band of lights being extinguished. The points will be self-restored to normal once they become free. After the points have been normalised, with pressing of the "Indicator Clear" button the MLI will clear to pulsating white and the main line trailing point indicator will display a white arrow.

Exit from the Loop Line

To exit the loop line, first press the "Indicator Cancel" button provided in the push button panel near the loop trailing point indicator. This will result in replacement of the MLI and main line TPI to red and after a 2 minute time delay, will release the points. The point's free indicator will be lit up. Now press the "Points Reverse" button provided on the pushbutton panel. Once the points have moved and detected, press the "Indicator Clear" button, the loop trailing point indicator will then display a White Arrow allowing movements back onto the main line.

Press the "Level Crossing Start" button to activate the level crossing protection when departing the loop in the Down direction. The loop trailing point indicator will display a White Arrow allowing movements back onto the main line, after ensuring that the booms are detected in closed position.

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 two red aspects on the loop trailing 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 and the main line trailing point indicator to white arrow.

Ground Frame

Frame C

Frame C is located on the UP side of the loop adjacent to the points and provides access to the Maintenance Siding.

Frame C is released by Annett key from Lever CC which is released by Operator's keys.

Lever CC

Lever CC is located on the UP side of the Maintenance Siding adjacent to the derail.

Lever CC is released by Operator's keys and releases an Annett key for Frame C.

Kidman Way Level Crossing

Type F Flashing Lights, booms and bells are provided at the Kidman Way Level Crossing at 665.843km.

The level crossing is protected by main line indicator "Y" for trains travelling in the Up direction. The main line indicator is normally clear and indicates that the level crossing warning equipment will operate on the approach of an Up train.

Operator's pushbuttons inscribed "Level Crossing Start" and "Level Crossing Cancel" are provided on the pushbutton panels at the MLI and TPI each side of the level crossing. They are to be used for entry into the loop in the Up direction or departure from the loop in the Down direction, or for a train stopping at the main line trailing point indicator on the Down direction.

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

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

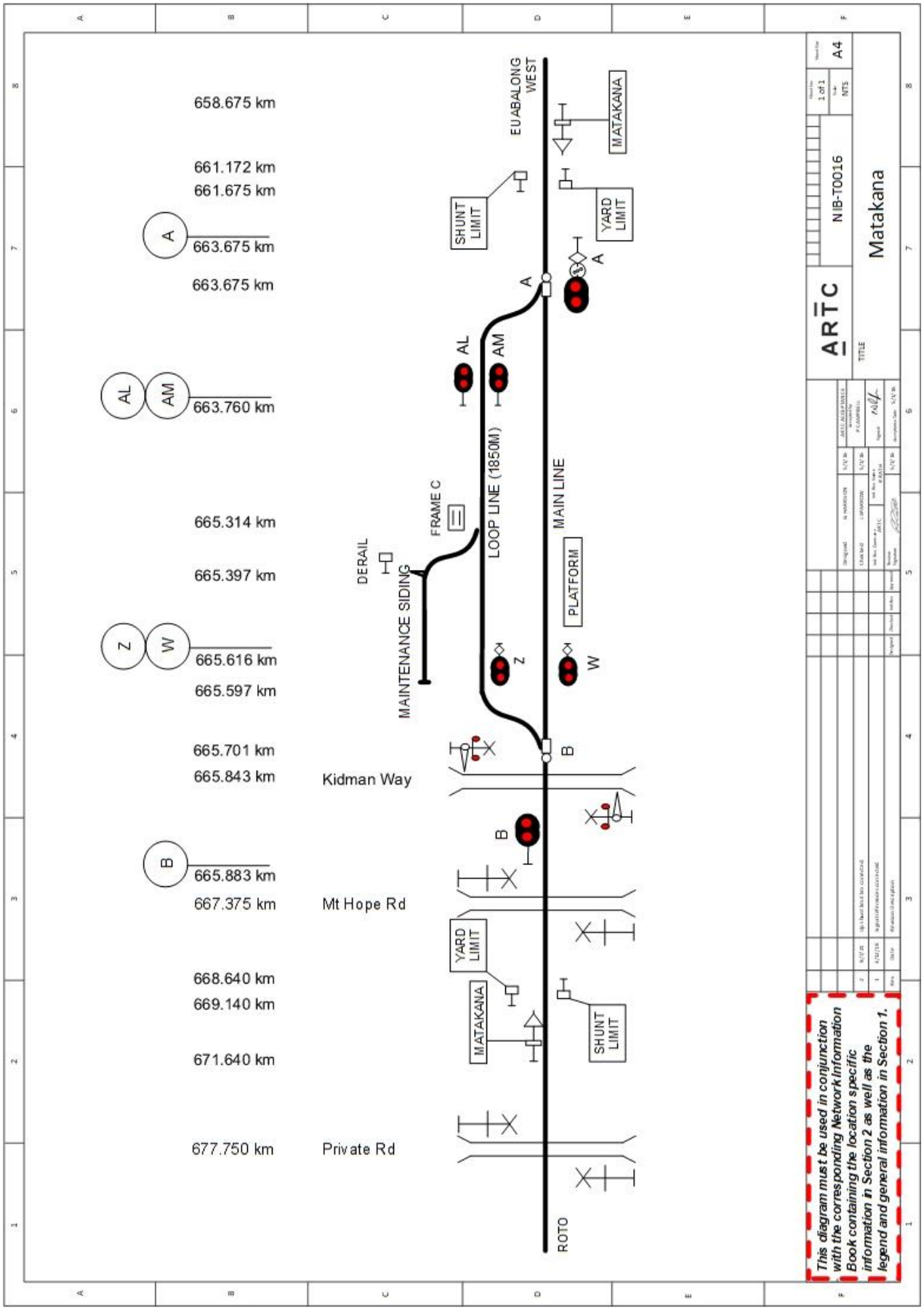
Locations of Train Order Signs

The following table shows the location of the train order working signs at Matakana

Sign ID	Sign Location
Down Location Sign	658.675 km
Down Yard Limit Sign	661.175 km
Up Shunt Limit Sign	661.675 km
Down Shunt Limit Sign	668.640 km
Up Yard Limit Sign	669.140 km
Up Location Sign	671.640 km

Note: As stated in the above information, the trailing point indicators are provided in lieu of clearance posts and these are located at 663.760km and 665.616km respectively.

Note: Roads to this location only accessible by 4WD


658.675 km
661.172 km
661.675 km
A
663.675 km
663.675 km
AL
AM
663.760 km
665.314 km
665.397 km
Z
W
665.616 km
665.597 km
665.701 km
665.843 km
B
665.883 km
667.375 km
668.640 km
669.140 km
671.640 km
677.750 km
EUABALONG WEST
MATAKANA
SHUNT LIMIT
YARD LIMIT
FRAME C
DERAIL
MAINTENANCE SIDING
LOOP LINE (1850M)
MAIN LINE
PLATFORM
Kidman Way
Mt Hope Rd
Private Rd
ROTO
NIB-T0016
Matakana
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.11 Euabalong West (EUA)

General Arrangements

Euabalong West is a siding location.

All interlocked points at Euabalong West are operated from ground frames.

Ground Frames

Frames A and F

Frames A and F are located on the Down side of the main line adjacent to the crossovers and provide access to the Up siding.

Frame A is unlocked by operator's keys.

Frame F is unlocked by Annett key from duplex lock F, which is unlocked by operator's keys.

Frames C and E

Frames C and E are located on the Up side of the Up siding adjacent to the crossovers and provide access to the Goods siding.

Frames C and E are unlocked by operator's keys.

MLI Operators Push Button Unit

Two buttons inscribed "Indicator clear" and "Indicator cancel" are provided in a secured box on a post.

The inscription on the inside door of the unit is as follows:

"To Clear Indicator, press clear button only when train is ready to depart toward Broken Hill. The indicator will clear after 15 seconds."

"To Cancel Indicator, press cancel button. The flashing lights will stop after 2 minutes."

To prevent the unnecessary operation of the level crossing warning equipment while shunting is taking place on the Sydney side of main line indicator X, the "Cancel indicator" pushbutton may be depressed to cancel the level crossing warning indications.

On completion of shunting and when the train is ready to depart, the "Clear indicator" pushbutton is depressed to restore and activate the level crossing warning indications.

Shunting Limit Boards

Shunting limit boards are provided in both the Up and the Down directions to define shunting limits.

Tipping Way (Mt Hope Road) Level Crossing

Type F flashing lights and bells are provided at the Tipping Way level crossing at 619.439km.

A level crossing hut is provided with an emergency equipment box, which is located on the wall of the hut.

The warning equipment is automatically controlled by track circuit for Down and Up trains on the main line, subject to the clearance of main line indicator X for Down trains, and manually controlled by operator's pushbuttons for trains shunting at the Matakana end of the Loop siding.

Operator’s pushbutton units for the level crossing

Two operator’s pushbuttons inscribed “Crossing start” and “Crossing cancel” are provided in a secured box on a post on each side of the level crossing. These are to be used if level crossing equipment does not operate correctly for the passage of a train.

When the level crossing equipment fails to operate correctly, the Qualified Worker must:

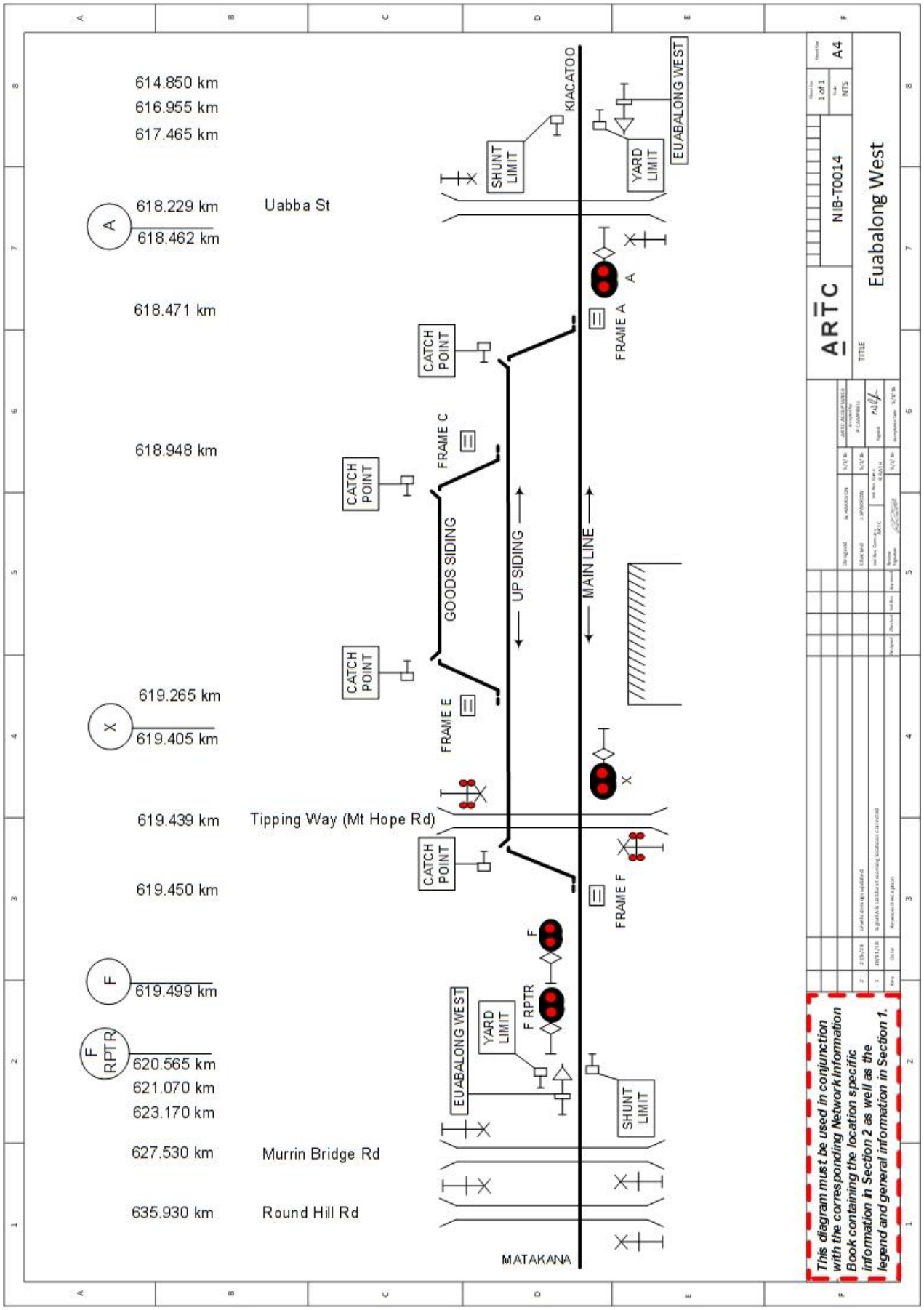
- depress the “Crossing start” pushbutton for one second to cause the warning equipment to operate
- and follow the instructions for shunting over level crossings before handsignalling the train over the crossing.

If the movement is not carried out, the warning indications must be cancelled by pressing the “Crossing cancel” pushbutton for one second.

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

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

Note: Roads to this location only accessible by 4WD


614.850 km
616.955 km
617.465 km
618.229 km
A
618.462 km
Uabba St
618.471 km
618.948 km
619.265 km
X
619.405 km
619.439 km
Tipping Way (Mt Hope Rd)
619.450 km
F
619.499 km
F RPTR
620.565 km
621.070 km
623.170 km
627.530 km
Murrin Bridge Rd
635.930 km
Round Hill Rd
MATAKANA
KIACATOO
SHUNT LIMIT
YARD LIMIT
EUABALONG WEST
FRAME A
CATCH POINT
FRAME C
GOODS SIDING
UP SIDING
MAIN LINE
FRAME E
FRAME F
F RPTR
NIB-T0014
Euabalong West
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.12 Kiacatoo (KCT)

General Arrangements

Kiacatoo is a crossing location in train order territory and is provided with an 1870 metre crossing loop and a silo siding.

The points at each end of the crossing loop are power operated. Main line indicator "A" is located near the points on the Parkes end of the loop and main line indicator "B" is located near the points at the Broken Hill end of the loop. Colour light point indicators "BM" & "BL" are provided instead of clearance posts in the Down direction and colour light point indicators "AM" & "AL" are provided instead of clearance posts in the Up direction.

The point indicators "AM", "AL", "BM" and "BL" will display either a "white arrow" aspect or two red lights depending on which way the points are set. The normal indication will be for "AM" & "BM" indicators to be displaying a "white arrow" while "AL" & "BL" indicators will be displaying two red lights.

Operation of Points, Main Line Indicators and Trailing Point Indicators

Power operated points "A" and "B" are self-normalising motor points, and will automatically return to normal 30 seconds after the rear of the train has:

- either arrived in clear in the loop line, provided that the rear of the train is past the "AL" or "BL" point indicator
- or passed "A" or "B" MLI when departing the loop line.

The points are controlled by track circuit and cannot be moved unless the track controlling the points is unoccupied.

The main line indicators "A" and "B" will normally display a clear (pulsating white) indication for the main line, provided that "A" and "B" points are correctly set, and the track is unoccupied.

The point indicators "AM" & "BM" will normally display a clear ("white arrow"), provided that "A" or "B" points are correctly set.

The operation of points and indicators can be manually controlled by a Qualified Worker via the use of operator's pushbutton units adjacent to the indicators as detailed above.

Frame C interlocked points are operated by a ground frame.

Operators Push Button Units

Operator's pushbutton units secured by an SL lock are provided:

- near Down main line indicator "A" to operate the indicator and points for a Down directional rail traffic to enter the loop line
- near Up direction point indicator "AM" to operate the indicator and points for an Up train on the main line
- near Up trailing colour light point indicator "AL" on the loop line to operate the indicator and points for an Up directional rail traffic to depart the loop line
- near Down point indicator "BM" to operate the indicator and points for a Down directional rail traffic on the main line
- near Down point indicator "BL", on the loop line, to operate the indicator and points for a Down directional rail traffic to depart the loop line

- and near Up main line indicator "B" to operate the indicator and points for a Up directional rail traffic to enter the loop line.

The pushbutton units are released by inserting an Operator's Key in the Operator's Lock and turning it clockwise.

To cancel the existing route, the "Indicator Cancel" pushbutton must be depressed for 2 seconds, the "points free" light will flash green until the points become free after 2 minutes, when a steady green "points free" light is illuminated the relevant green indicator pushbutton can be depressed.

If after the operation of any of the pushbuttons, it is decided not to proceed with the movement, the "Indicator Cancel" pushbutton must be depressed. This will place the applicable indicator at stop.

The operator's pushbutton units contain the following equipment:

- an operator's key contact lock
- either one green pushbutton ("AM", "AL", "BM" & "BL" indicators) or two green pushbuttons ("A" MLI & "B" MLI) to set the points and set the appropriate indicator
- a red pushbutton inscribed "Indicator Cancel"
- and a green light inscribed "points free"

Note: The operation of any "Indicator Cancel" push button at "A" MLI "AM" or "AL" Point Indicators will also cause "B" MLI to be cancelled and display a stop (red) indication. Additionally, the operation of any "Indicator Cancel" push button at "B" MLI, "BM" or "BL" indicators will also cause "A" MLI to be cancelled and display a stop (red) indication.

Working a Train Through Kiacatoo on the Main Line

MLI's "A" and "B" will normally display a pulsating white aspect and the main line point indicators "AM" and "BM" will display a white arrow, provided all other signalling conditions are satisfied.

A pulsating white indication displayed in "A" MLI will allow a "through" Down train to pass through Kiacatoo at permitted line speed on the main line, the point indicator "BM" at the other end of the loop will display a "White Arrow" indication.

A pulsating white indication displayed in "B" MLI will allow a "through" Up train to pass through Kiacatoo at permitted line speed on the main line, "AM" point indicator at the other end of the loop will display a "White Arrow" indication.

Train Entering the Loop Line

The Down train must be brought to a stand short of "A" MLI, or for an Up train "B" MLI, the qualified worker will then operate the operator's pushbutton unit as described above. Once the route has been called the "points free" indicator will be extinguished, the points will set for the reverse position and the route turnout indicator on the MLI will display a steady red light with angled white lights, allowing movement into the loop line.

As detailed above, points "A" and "B" will automatically return to normal 30 seconds after the rear of the train is past "AL" or "BL" point indicator respectively.

To cancel the movement into the loop, the qualified worker must operate the operator's pushbutton unit as described above, which will extinguish the MLI's angled white lights.

Train Departing the Loop Line

An Up train must be brought to a stand short of "AL" point indicator or "BL" point indicator for a Down train. The qualified worker will then operate the operator's pushbutton unit as described above. Once the route has been called the "points free" indicator will be extinguished, the points will set for the reverse position and, for a Up train, "AL" point indicator will display a "white arrow", while for a Down train, "BL" point indicator will display a "white arrow", the points are set and locked for the route indicated by the direction of the arrow.

As detailed above, points "A" and "B" will automatically return to normal 30 seconds after the rear of the train is past "A" or "B" MLI.

To cancel the movement from the loop, the qualified worker must operate the operator's pushbutton unit as described above, which will return "AL" or "BL" point indicator to two red lights.

Operation of Power Operated Points in an Emergency

Points "A" and "B", located at each end of the loop line, are power operated.

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

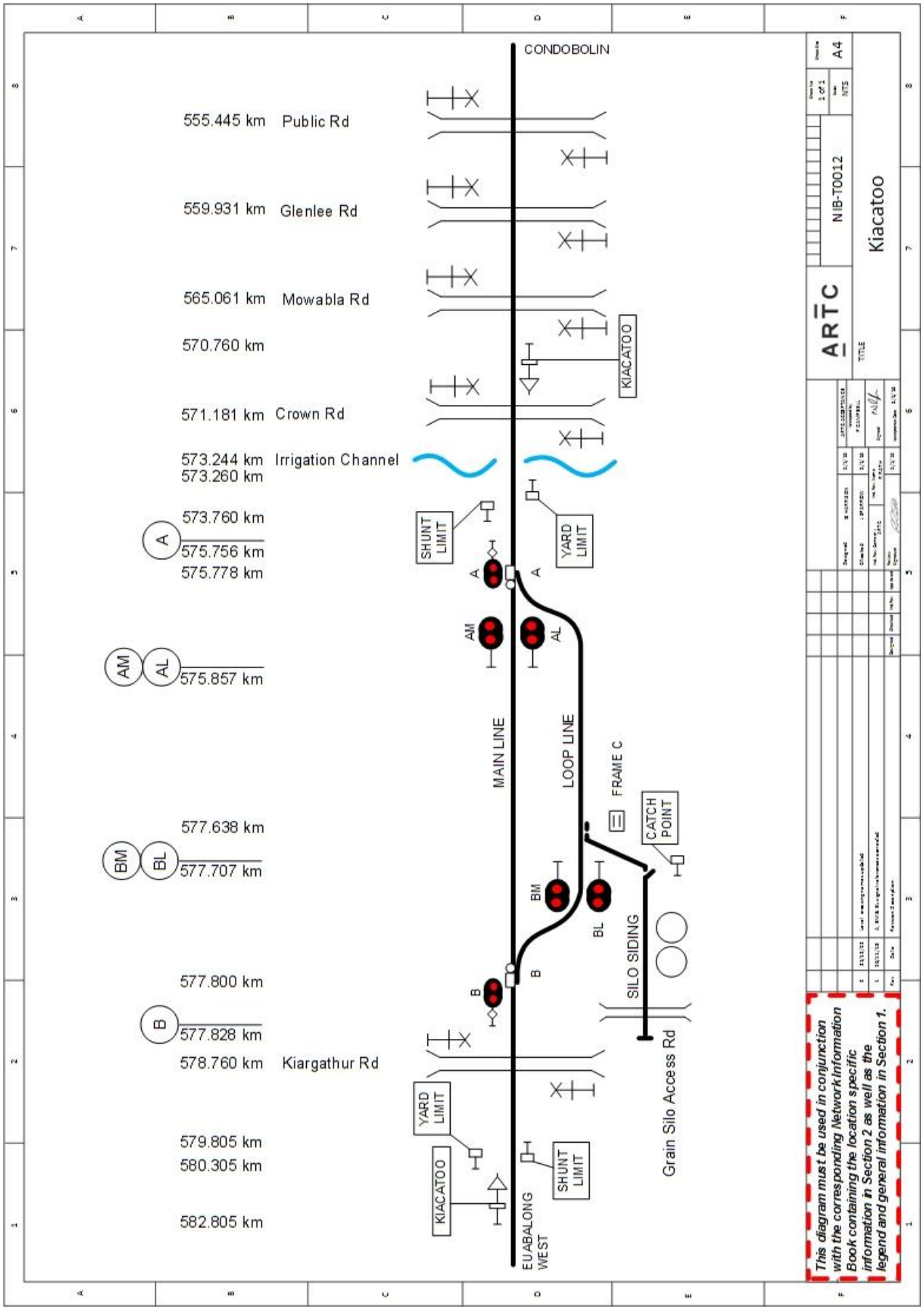
To manually operate the points, the EOL key must first be obtained from the EOL box fitted to the outer wall of the respective interlocking cupboard located near the points, the EOL box is secured by an SL lock. The EOL key should be inserted into the EOL slot in the point machine and turned to release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

The lock lever should then be moved from the "motor" position to the "hand" 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.

Ground Frame

Frame C is located on the Down side of the loop line adjacent to the points and provide access to the silo siding.

Frame C is unlocked by the operator's key.


CONDOBOLIN
555.445 km Public Rd
559.931 km Glenlee Rd
565.061 km Mowabla Rd
570.760 km
571.181 km Crown Rd
573.244 km Irrigation Channel
573.260 km
573.760 km
575.756 km
575.778 km
575.857 km
577.638 km
577.707 km
577.800 km
577.828 km
578.760 km Kiargathur Rd
579.805 km
580.305 km
582.805 km
KIACATOO
SHUNT LIMIT
YARD LIMIT
MAIN LINE
LOOP LINE
FRAME C
CATCH POINT
SILO SIDING
Grain Silo Access Rd
EUABALONG WEST
NIB-T0012
Kiacatoo
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.13 Condobolin (CON)

General Arrangements

Condobolin is a crossing location.

All interlocked points at Condobolin are operated from ground frames.

Ground Frames

Frames A and G

Frames A and G are located on the Down side of the main line adjacent to the points and provide access to the loop line.

Frames A and G are unlocked by operator's keys.

Frames C and D

Frames C and D are located on the Down side of the main line adjacent to the points and provide access to the goods siding and the silo siding.

Frames C and D are unlocked by operator's keys.

Frames H and J

Frames H and J are located on the Up side of the main line adjacent to the points and provide access to the Wheat Siding.

Frames H and J are unlocked by operator's keys.

Shunting Limit Boards

Shunting limit signs are provided in both the Up and the Down directions to define shunting limits.

MLI Operators Push Button Unit

Two buttons inscribed "Indicator clear" and "Indicator cancel" are provided in a secured box on a post.

The inscription on the inside door of the unit is as follows:

"To Clear Indicator press clear button only when train is ready to depart. The indicator will clear after 15 seconds."

"To Cancel Indicator press cancel button. The flashing lights will stop after 2 minutes.”

To prevent the unnecessary operation of the level crossing warning equipment while shunting is taking place on the Sydney side of main line indicator X, the “Cancel indicator" pushbutton may be depressed to cancel the level crossing warning indications.

On completion of shunting and when the train is ready to depart, the "Clear indicator" pushbutton is depressed to restore and activate the level crossing warning indications.

Melrose Road Level Crossing

Type F flashing lights and bells are provided at the Melrose Road level crossing at 548.233km.

The warning equipment is automatically controlled by track circuit for Down and Up trains on the main line, subject to the clearance of main line indicator X for Up trains.

Main line indicator X is provided on the Kiacatoo side of the Melrose Road level crossing. The indicator is a two-light indicator and displays either a pulsating lunar white or a steady red indication.

The main line indicator is interlocked with the warning equipment at the Melrose Road level crossing.

552.759 km
552.608 km Kiacatoo Road
550.545 km
550.030 km
549.603 km J
549.555 km
549.153 km
549.090 km H
549.100 km
548.266 km X
549.088 km Public Road
547.160 km
548.243 km Melrose Road
546.750 km
546.662 km G
546.413 km
546.502 km McDonnell St Overpass
545.735 km
545.304 km A
545.310 km
545.280 km May Street
544.523 km Maitland Street
543.765 km
544.265 km
542.869 km Airport Lane
541.500 km

XPT 115 60 XPT

CONDOBLIN
YARD LIMIT
J
FRAME J
FRAME H
X
G
KIACATOO
SHUNT LIMIT
(389m)
WHEAT SIDING
H
CATCH POINTS
CATCH POINTS
LOOP LINE
964m
MAIN LINE
FRAME G
FRAME C
FRAME C
A
GOODS SIDING
STOP
CATCH POINTS
FRAME A
(STANDING ROOM 350m)
SILO SIDING
SHUNT LIMIT
DERRIWONG
YARD LIMIT
CONDOBOLIN

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

Rev	Date	Revision Description
1	21/12/22	Level crossing names updated

Designed: B HORRIGAN 3/3/10
Checked: J SPARROW 3/3/10
Ind Rev. Comp'n: ARTC Ind Rev. Name: R KUTH
Revision Signature: 3/3/10
ARTC ACCEPTANCE
Reviewed by: P CAMPBELL
Signed:
Acceptance Date: 3/3/10

ARTC
NIB-T0010
Sheet No: 1 of 1
Scale: NTS
Sheet Size: A3
TITLE
Condobolin

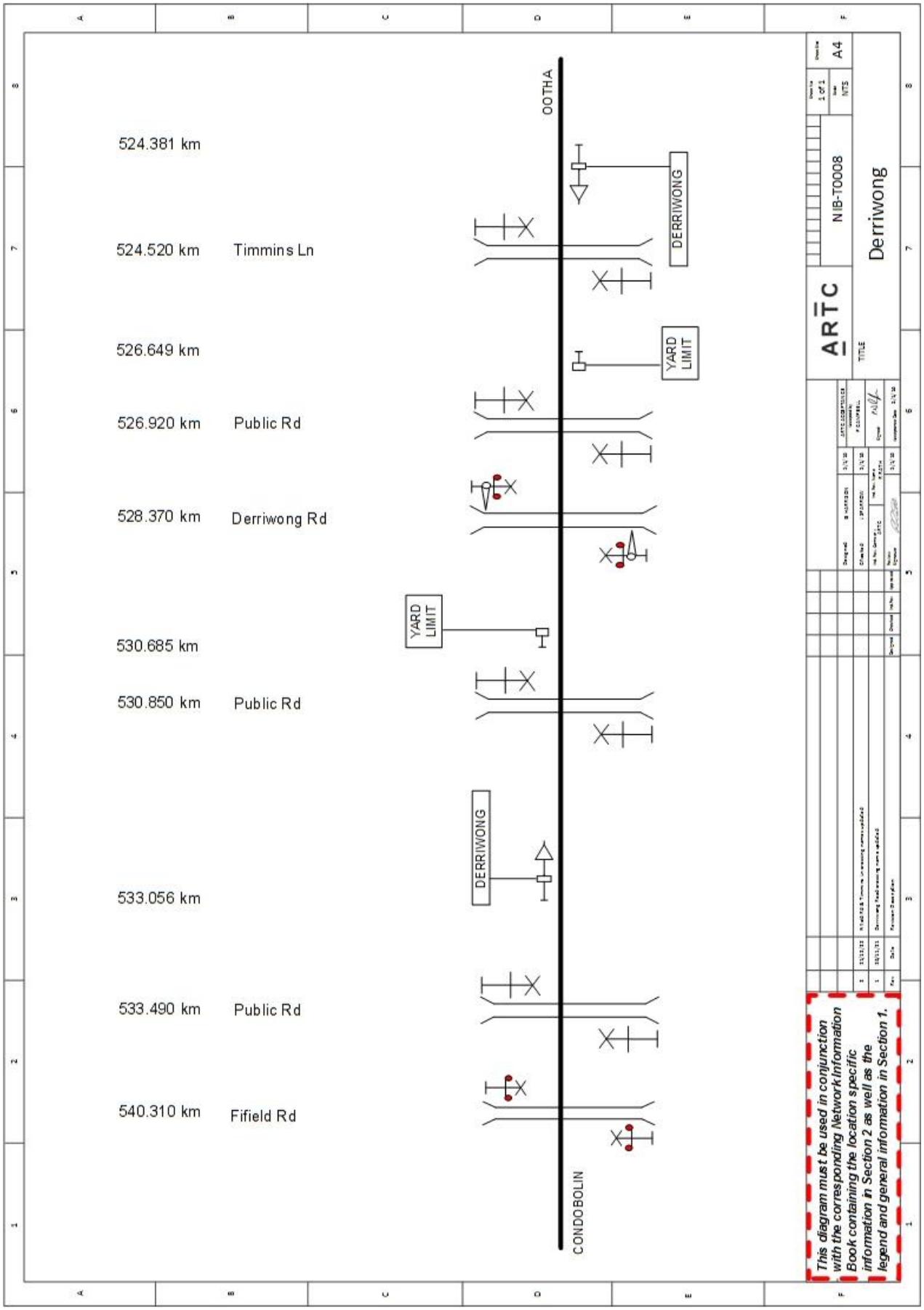
2.14 Derriwong (DER)

General Arrangements

Derriwong is a block location with no crossing facilities provided.

Special Instructions

- Train Orders must only be issued through Derriwong or to the Yard Limit sign at the arrival end in the direction of travel.
- A Train Order must not be issued authorising a train to occupy the main line between the Yard Limit signs unless the movement is part of a through order.
- Possession of the main line between Yard Limit signs may be authorised.


OOTHA
524.381 km
524.520 km
Timmins Ln
526.649 km
526.920 km
Public Rd
528.370 km
Derriwong Rd
530.685 km
530.850 km
Public Rd
533.056 km
533.490 km
Public Rd
540.310 km
Fifield Rd
CONDOBOLIN
DERRIWONG
YARD LIMIT
YARD LIMIT
DERRIWONG
NIB-T0008
Derriwong
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

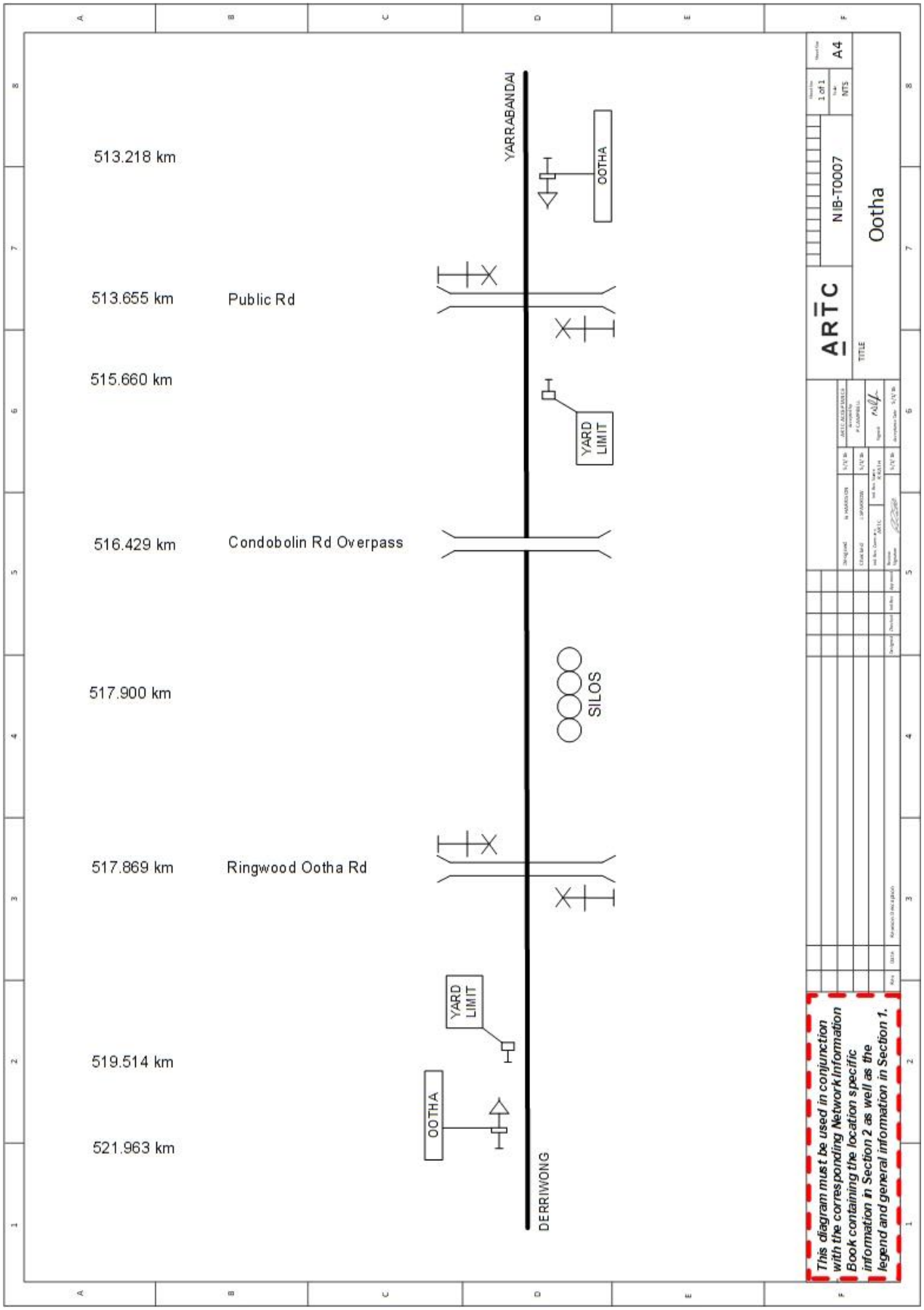
2.15 Ootha (OTH)

General Arrangements

Ootha is a block location with no crossing facilities provided.

Special Instructions

- Train Orders must only be issued through Ootha or to the Yard Limit sign at the arrival end in the direction of travel.
- A Train Order must not be issued authorising a train to occupy the main line between the Yard Limit signs unless the movement is part of a through order.
- Possession of the main line between Yard Limit signs may be authorised.


513.218 km
513.655 km
Public Rd
515.660 km
516.429 km
Condobolin Rd Overpass
517.900 km
517.869 km
Ringwood Ootha Rd
519.514 km
521.963 km
YARRABANDAI
OOTHA
YARD LIMIT
SILOS
YARD LIMIT
OOTHA
DERRIWONG
NIB-T0007
Ootha
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.16 Yarrabandai (YAI)

General Arrangements

Yarrabandai is a crossing location in train order territory and is provided with a 1920 metre crossing loop and a silo siding.

The points at each end of the crossing loop are power operated. Main line indicator “A” is located on the Parkes side of Forbes Road level crossing and main line indicator “B” is located near the points at the Broken Hill end of the loop. Main line indicator’s “X” & “Y” are provided instead of clearance posts in the Up direction on the Broken Hill side of Forbes Road level crossing and dwarf colour light trailing point indicators “BM” & “BL” provided instead of clearance posts in the Down direction.

Trailing point indicators “BM” and “BL” will display either a “white arrow” aspect or two red lights depending on which way the points are set, the normal indication will be for “BM” indicator to be displaying a “white arrow” while “BL” indicator will be displaying two red lights.

Silo Siding

A silo siding is provided at Yarrabandai. This siding is accessed from frame C at the Bogan Gate end of the crossing loop and frame D at the Ootha end of the crossing loop. This two lever frame consists of a FPL lever and a points lever. The FPL lever is released with an operator’s key.

Operation of Points, Main Line Indicators and Trailing Point Indicators

Power operated points “A” and “B” are self-normalising motor points, and will automatically return to normal 30 seconds after the rear of the train has:

- either arrived in clear in the loop line, provided that the rear of the train is past the “Y” main line indicator (MLI) or “BL” dwarf colour light point indicator
- or passed “A” or “B” MLI when departing the loop line

The points are controlled by track circuit and cannot be moved unless the track(s) controlling the points is unoccupied.

The main line indicators “A”, “B” and “X” will normally display a clear (pulsating white) indication for the main line, provided that “A” and “B” points are correctly set, the tracks are unoccupied and Forbes Road Level crossing is functioning correctly. Trailing point indicator “BM” will be normally display a clear (“white arrow”) for the main line, provided that “A” and “B” points are correctly set and the tracks are unoccupied.

The operation of points and indicators can be manually controlled by a Qualified Worker via the use of operator’s pushbutton units adjacent to the indicators.

All other interlocked points are operated by ground frames.

Operators Push Button Units

Operator’s pushbutton units secured by an SL lock are provided:

- near Down main line indicator “A” to operate the indicator and points for a Down train to enter the loop line
- near Up main line indicator “Y” to operate the indicator and points for a Up train on the main line
- near Up main line indicator “X”, on the loop line, to operate the indicator and points for a Up train to depart the loop line

- near Down trailing colour light point indicator “BM” to operate the indicator and points for a Down train on the main line
- near Down trailing colour light point indicator “BL”, on the loop line, to operate the indicator and points for a Down train to depart the loop line
- and near Up main line indicator “B” to operate the indicator and points for a Up train to enter the loop line

The pushbutton units are released by inserting an Operator’s Key in the Operator’s Lock and turning it.

To cancel the existing route, the “Indicator Cancel” pushbutton must be depressed for 2 seconds, the “points free” light will flash green until the points become free after 2 minutes, when a steady green “points free” light is illuminated the relevant green indicator pushbutton can be depressed.

If after the operation of any of the pushbuttons, it is decided not to proceed with the movement, the “Indicator Cancel” pushbutton must be depressed. This will place the applicable indicator at stop.

The operator’s pushbutton units contain the following equipment:

- an operator’s key contact lock
- either one green pushbutton (“Y” MLI, “X” MLI, “BM” & “BL” indicator) or two green pushbuttons (“A” MLI & “B” MLI) to set the points and clear the appropriate indicator
- a red pushbutton inscribed “Indicator Cancel”
- and a green light inscribed “points free”

Note: The operation of any “Indicator Cancel” push button at “A”, “X” or “Y” MIL’s will cause “B” MLI to be cancelled and display a stop (red) indication. Likewise, the operation of any “Indicator Cancel” push button at “B” MLI, “BM” or “BL” indicators will also cause “A” MLI to be cancelled and display a stop (red) indication.

Working a Train Through Yarrabandai on the Main Line

MLI’s “A”, “B” and “X” will normally display a pulsating white aspect and the main line trailing point indicator “BM” will display a white arrow, provided all other conditions are satisfied.

A pulsating white indication displayed in “A” MLI will allow a “through” Down train to pass through Yarrabandai at permitted full line speed on the main line as the trailing point indicator “BM” at the other end of the loop will be displaying a “White Arrow” aspect.

A pulsating white indication displayed in “B” MLI will allow a “through” Up train to pass through Yarrabandai at permitted full line speed on the main line as “X” MLI at the other end of the loop will be displaying a pulsating white indication.

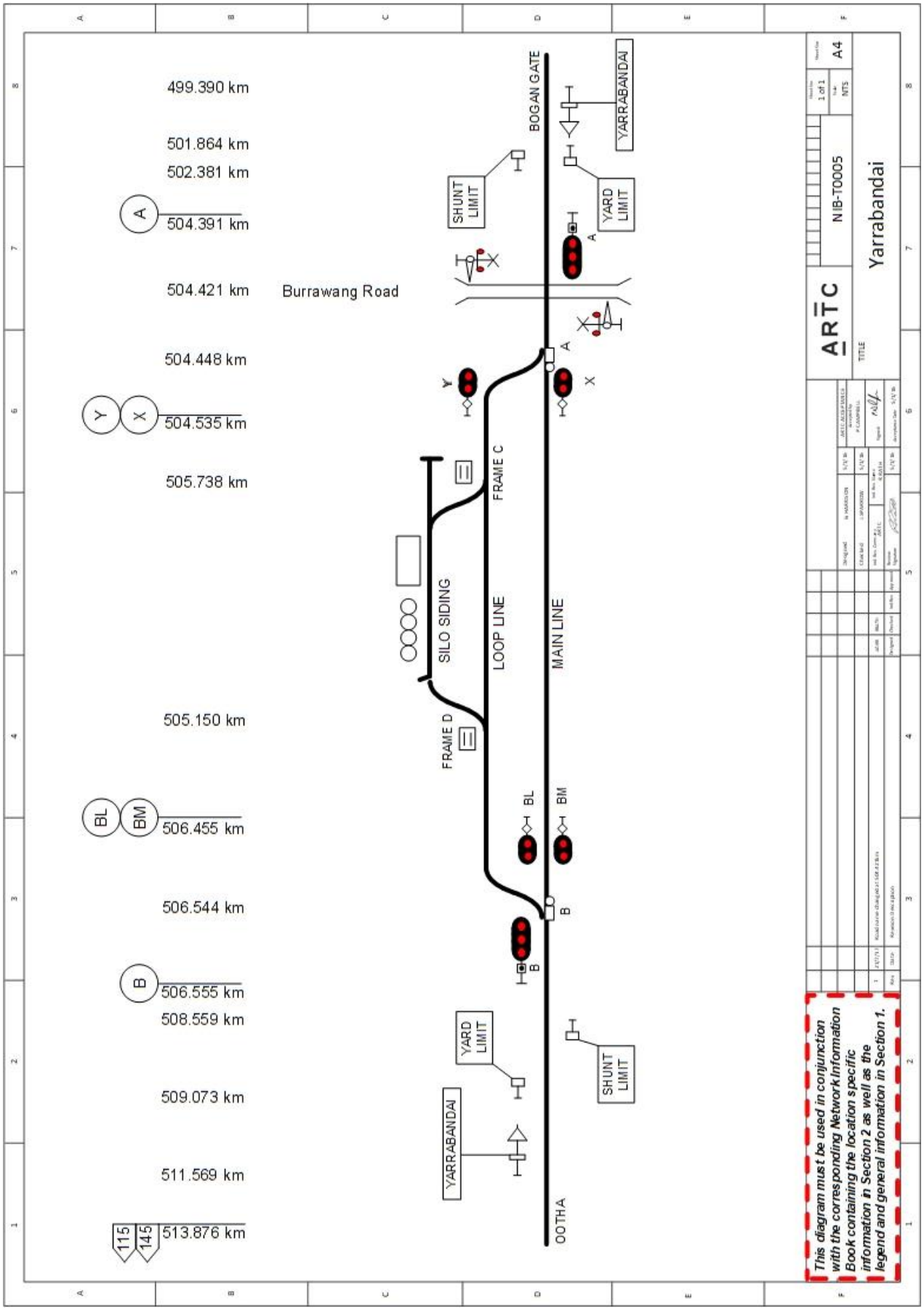
Should “X” MLI be displaying a red indication and provided “B” points are correctly set for the main line and the track circuits unoccupied “B” MLI will display a yellow indication.

Train Entering the Loop Line

The Down train must be brought to a stand short of “A” MLI, or for an Up train “B” MLI, the qualified worker will then operate the operator’s pushbutton unit as described above. Once the route has been called the “points free” indicator will be extinguished, the points will complete their movement and the route turnout indicator on the MLI will display a band of white lights, allowing movement into the loop line.

As detailed in the ‘Operation of Points’ section above, points “A” and “B” will automatically return to normal 30 seconds after the rear of the train is past “Y” MLI or “BL” trailing point indicator.

To cancel the movement into the loop, the qualified worker shall operate the operator’s pushbutton unit as described above, which will extinguish the MLI’s white band of lights.


499.390 km
501.864 km
502.381 km
A
504.391 km
504.421 km
Burrawang Road
504.448 km
Y
X
504.535 km
505.738 km
505.150 km
BL
BM
506.455 km
506.544 km
B
506.555 km
508.559 km
509.073 km
511.569 km
115
145
513.876 km
BOGAN GATE
YARRABANDAI
SHUNT LIMIT
YARD LIMIT
FRAME C
FRAME D
SILO SIDING
LOOP LINE
MAIN LINE
OOTHA
NIB-T0005
Yarrabandai
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.17 Bogan Gate North (BPN)

General Arrangements

Bogan Gate North is a Train Order Location which is the interface point between ARTC and CRN (Country Regional Network). The location is at 486.050km.

The End ARTC Control \ Begin CRN control signs facing towards down direction rail traffic at 486.050km are the limit of authorities issued by the ARTC Network Controller. The End CRN Control \ Begin ARTC Control signs at 486.050km facing towards Up direction rail traffic are the limit of authorities issued by the CRN Network Controller.

Refer Safety Interface Agreement IA3000.03 for further details.

Down Rail Traffic

Down rail traffic are issued an authority by the ARTC Network Controller to the “End ARTC control sign”, rail traffic cannot pass this point until they are in possession of an authority issued by CRN to continue. The authority issued by ARTC cannot be fulfilled until the whole of the rail traffic movement has passed the End ARTC Control sign.

Up Rail Traffic

Up rail traffic are issued an authority by the CRN Network Controller to the “End CRN control sign”, rail traffic cannot pass this point until they are in possession of an authority issued by ARTC to continue. The authority issued by CRN cannot be fulfilled until the whole of the rail traffic movement has passed the End CRN Control sign.

2.17.1 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 486.050 km.

Back-to-Back LPA’s

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.

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.

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

When a TOA worksite extends beyond the Operational Interface or the worksite is located within 500m of the Operational Interface, separate TOAs 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.

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.

TWAs must not extend beyond the operational interface.

Route Control Blocking (RCB)

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

2.18 Bogan Gate (BGT)

General Arrangements

Bogan Gate is a crossing location.

All interlocked points at Bogan Gate are operated from ground frames.

Ground Frames

Frames A and C

Frames A and C are located on the Up side of the main line adjacent to the crossovers and provide access to the Grain siding.

Frame A is unlocked by the key from duplex lock A, which is released by the operator's keys.

Frame C is unlocked by the key from duplex lock C, which is released by the operator's keys.

Frames B and D

Frame B is located on the Down side and frame D is located on the Up side of the main line adjacent to the crossovers and provide access to the Loop line.

Frame B is unlocked by the key from duplex lock B, which is released by the operator's keys.

Frame D is unlocked by the key from duplex lock D, which is released by the operator's keys.

Frame E

Frame E is located on the Up side of the main line adjacent to the crossovers and provides access to the Branch line.

Frame E is unlocked by the key from duplex lock E, which is released by the operator's keys.

Frame F

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

Frame F is unlocked by an operator's key.

Shunting Limit Boards

Shunting limit boards are provided in both the Up and Down directions to define the shunting limits.

Forbes Road Level Crossing

Type F flashing lights and bells are provided at Forbes Road level crossing at 483.330km.

A level crossing hut is provided with the emergency equipment box, which is located on the wall of the hut.

The level crossing is protected by main line indicator X for trains travelling in the Down direction. The main line indicator is normally clear and indicates that the level crossing warning equipment will operate on the approach of a Down train.

Operator's pushbutton units for the level crossing

Two operator's pushbuttons inscribed "Crossing start" and "Crossing cancel" are provided in a secured box on a post on each side of the level crossing. These are to be used if level crossing equipment does not operate correctly for the passage of a train.

When the level crossing equipment fails to operate correctly, the Qualified Worker must:

- depress the "Crossing start" pushbutton for one second to cause the warning equipment to operate, and
- follow the instructions for shunting over level crossings before handsignalling the train over the crossing.

If the movement is not carried out, the warning indications must be cancelled by pressing the "Crossing cancel" pushbutton for one second.

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

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

MLI Operators Push Button Unit

Two buttons inscribed "Indicator clear" and "Indicator cancel" are provided in a secured box on a post.

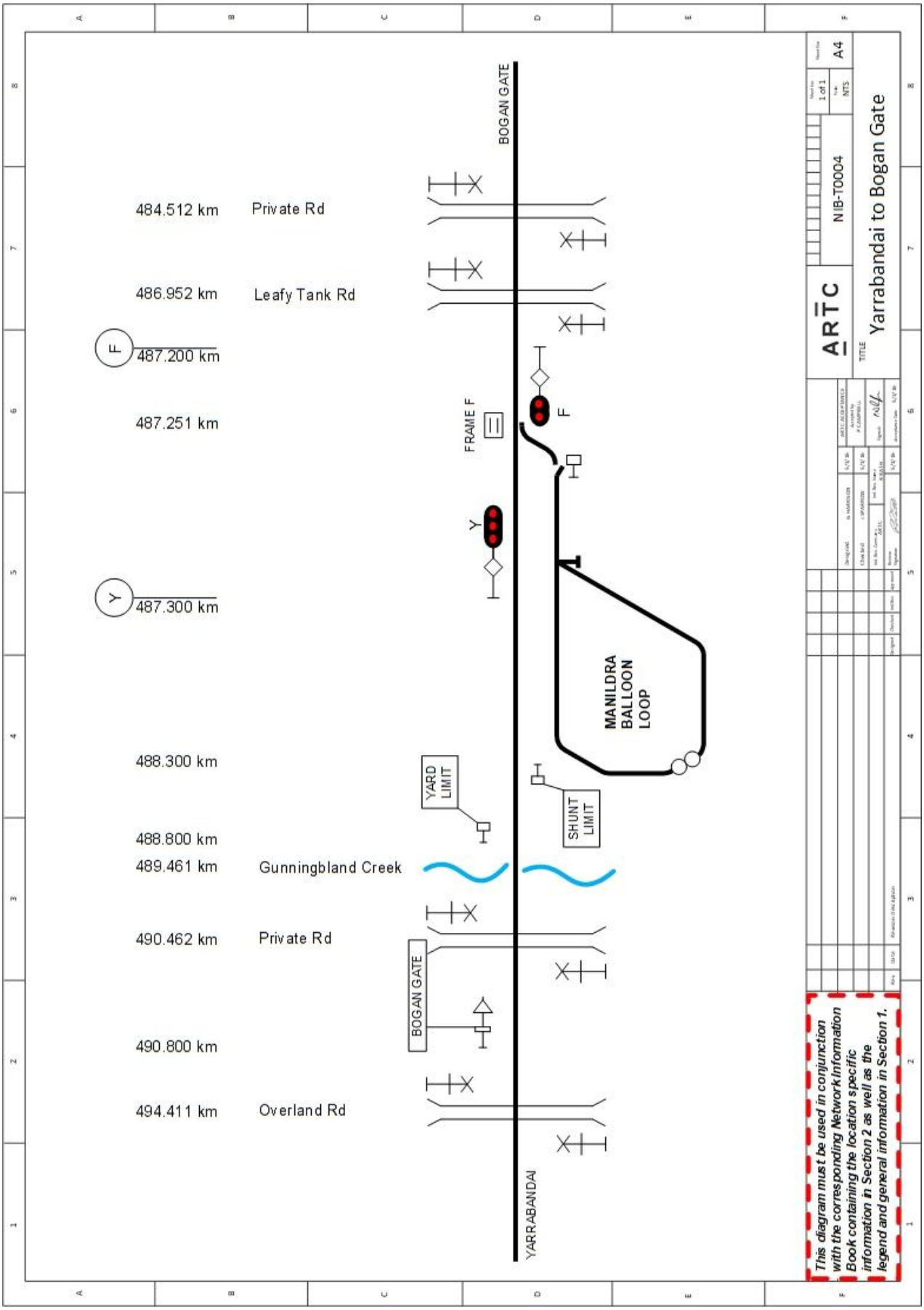
The inscription on the inside door of the unit is as follows:

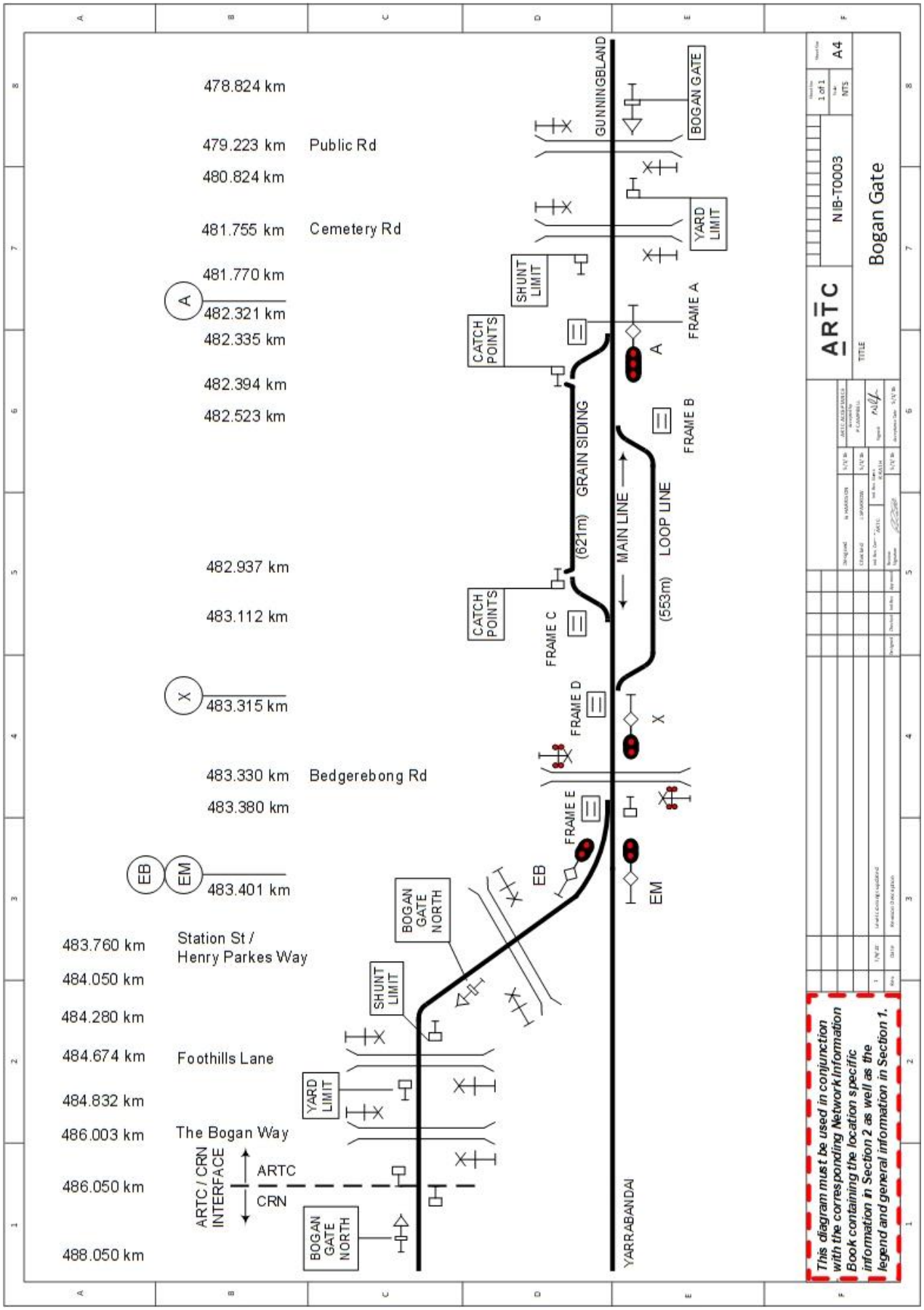
"To Clear Indicator, press clear button only when train is ready to depart toward Broken Hill. The indicator will clear after 15 seconds."

"To Cancel Indicator, press cancel button. The flashing lights will stop after 2 minutes."

To prevent unnecessary operation of the level crossing warning equipment while shunting is taking place on the Sydney side of main line indicator X, the "Cancel indicator" pushbutton may be depressed to cancel the level crossing warning indications.

On completion of shunting and when the train is ready to depart, the "Clear indicator" pushbutton is depressed to restore and activate the level crossing warning indications.


BOGAN GATE
484.512 km
Private Rd
486.952 km
Leafy Tank Rd
F
487.200 km
487.251 km
FRAME F
F
Y
Y
487.300 km
MANILDRA
BALLOON
LOOP
488.300 km
YARD
LIMIT
SHUNT
LIMIT
488.800 km
489.461 km
Gunningbland Creek
490.462 km
Private Rd
BOGAN GATE
490.800 km
494.411 km
Overland Rd
YARRABANDAI
ARTC
NIB-T0004
A4
TITLE
Yarrabandai to Bogan Gate
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.


478.824 km
479.223 km
Public Rd
480.824 km
481.755 km
Cemetery Rd
481.770 km
A
482.321 km
482.335 km
482.394 km
482.523 km
482.937 km
483.112 km
X
483.315 km
483.330 km
Bedgerebong Rd
483.380 km
EB
EM
483.401 km
483.760 km
Station St /
Henry Parkes Way
484.050 km
484.280 km
484.674 km
Foothills Lane
484.832 km
486.003 km
The Bogan Way
ARTC / CRN INTERFACE
ARTC
CRN
486.050 km
488.050 km
GUNNINGBLAND
BOGAN GATE
YARD LIMIT
SHUNT LIMIT
CATCH POINTS
FRAME A
FRAME B
FRAME C
FRAME D
FRAME E
GRAIN SIDING
(621m)
MAIN LINE
LOOP LINE
(553m)
BOGAN GATE NORTH
YARRABANDAI
NIB-T0003
Bogan Gate
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.19 Gunningbland (GBD)

General Arrangements

Gunningbland is a siding location.

It is provided with an emergency equipment box, which is located on the Up side of the main line at 470.631km.

Operation of Points

All interlocked points at Gunningbland are operated from ground frames.

Ground Frames

Frames A and B are located on the Down side of the main line adjacent to the crossovers and provide access to the Down siding.

Frames A and B are unlocked by operator's keys.

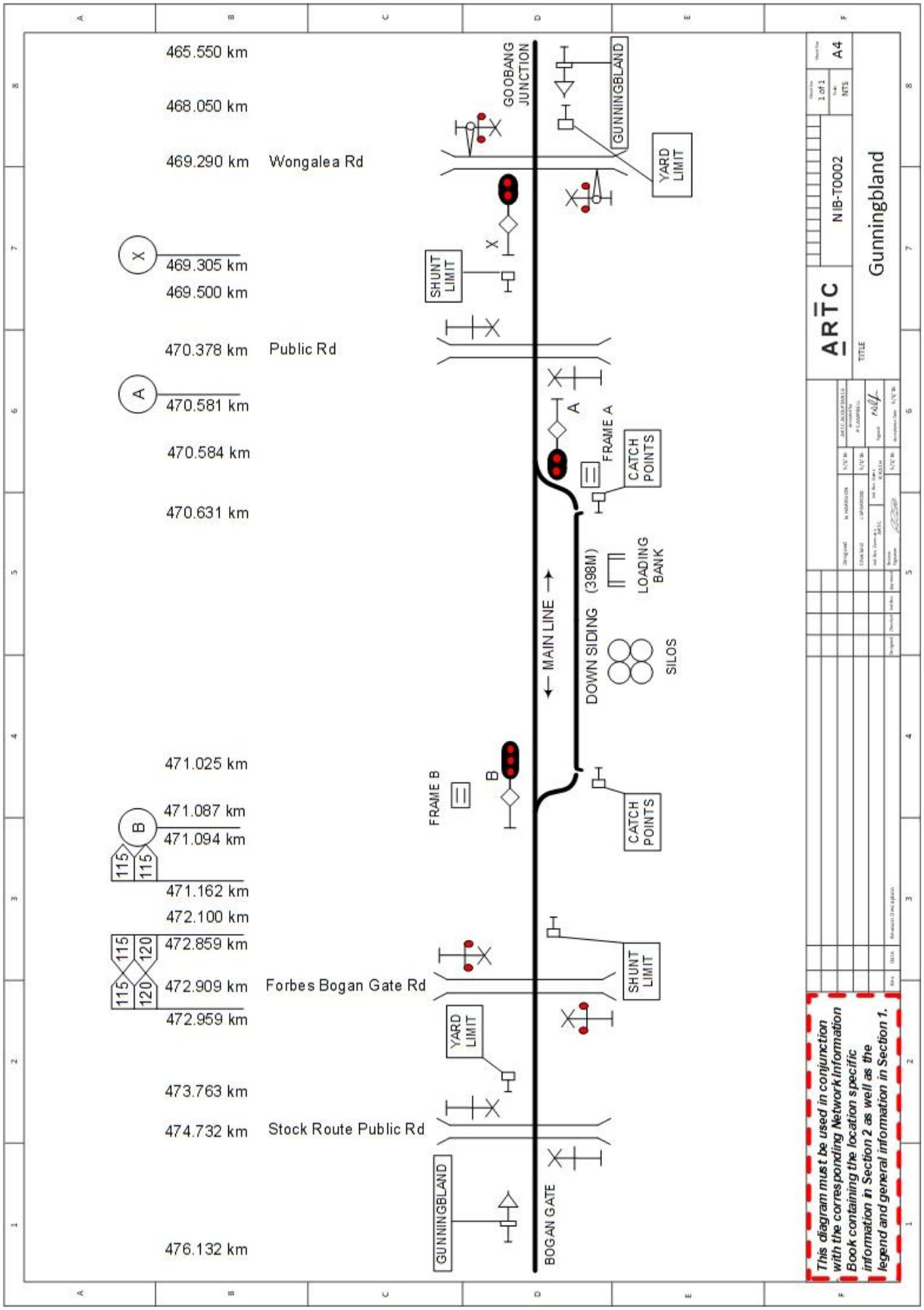
Shunting Limit Boards

Shunting limit boards are provided in both the Up and Down directions to define the shunting limits.

Forbes Road Level Crossing

Type F flashing lights and bells are provided at Forbes Road level crossing at 472.909km.

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


465.550 km
468.050 km
469.290 km
Wongalea Rd
469.305 km
469.500 km
470.378 km
Public Rd
470.581 km
470.584 km
470.631 km
471.025 km
471.087 km
471.094 km
471.162 km
472.100 km
472.859 km
472.909 km
Forbes Bogan Gate Rd
472.959 km
473.763 km
474.732 km
Stock Route Public Rd
476.132 km
GOOBANG JUNCTION
GUNNINGBLAND
YARD LIMIT
SHUNT LIMIT
FRAME A
CATCH POINTS
MAIN LINE
DOWN SIDING (398M)
LOADING BANK
SILOS
FRAME B
BOGAN GATE
A4
NIB-T0002
Gunningbland
TITLE
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.20 SCT Parkes (SCP) & Parkes North West Yard (PNP)

2.20.1 General Arrangements

SCT Parkes adjoins Parkes (Goobang Junction) yard and although there is no section, a current order must be issued when rail traffic is to travel between the two locations. Parkes (Goobang Junction) is a signalled location and SCT Parkes is a train order location

Down trains may depart Parkes (Goobang Junction) yard to SCT Parkes on the authority of a train order or a shunt order, depending on the circumstances. Up trains entering Parkes (Goobang Junction) yard from SCT Parkes will do so on the authority of No. GJ150 outer home signal at Parkes (Goobang Junction).

As SCT Parkes adjoins Parkes (Goobang Junction) yard, there is no location sign provided in the Down direction for SCT Parkes, the name plate for SCT Parkes is fitted above the begin train order working sign.

Refer Safety Interface Agreement IA1103 (SCT Logistics and Terminal) for further details.

SCT Parkes adjoins the Parkes North West Yard (PNWY). The main siding of the PNWY is called the North West Link. The North West Link is accessed in the down direction from Parkes via a 1248m spur from the Main Line called East Fork. The North West Link is accessed in the up direction from the Main Line (rail traffic approaching from Gunningbland).

Motorised points with colour light Main Line Indicators (MLI's) and Point Indicators (PI's) are used to access and exit the PNWY. Stabling is not permitted on East Fork. The East Fork is not a siding, it is an extension of the Main Line.

Entry and exit into the North West Link is a collaboration between the Parkes North West Yard Coordinator (PNWY Coordinator) and users of the ARTC network. Some of the pushbuttons located outside of the PNWY are used to operate points and indicators within the PNWY and could affect operations under the control of the PNWY Coordinator. Some of the pushbuttons located within the PNWY are used to operate points and indicators within ARTC Train Order Working (TOW) territory and could affect operations under the control of TOW. Therefore, the inscriptions and signage at pushbuttons contain specific instructions to obtain proceed authorities prior to operating some specific buttons. Refer to Safety Interface Agreement IA99 for further details.

Coopers Road is an automatic active level crossing with half booms.

GJ149 proceed aspect is a "Caution Yellow". Through trains from Goobang Junction to Gunningbland should be prepared to stop at A MLI (Main Line Indicator) unless A MLI is displaying a "Pulsating White" aspect.

'A' MLI will display a "Pulsating White" aspect when main line points are in the normal position for through rail traffic movements from Parkes SCT to Gunningbland.

'D' MLI will display a "Caution Yellow" aspect when main line points are in the normal position for through rail traffic movements from Gunningbland to SCT Parkes Frame A Mechanical Point Indicator (MPI).

DNW MLI will display a "Pulsating White" aspect when D points are set in the reverse position for rail traffic movements to depart the PNWL to Gunningbland.

'E' MLI will display a "Caution Yellow" aspect when E points are in the normal position and the route is set for rail traffic movements to depart the North West Link to Gunningbland.

'E' MLI point indicator will display a "white arrow" aspect when E points are in the normal position and the route is set for shunting movements on the North West Link.

'E' MLI will display "angled white lights (Left-hand White)" aspect when E points are in the reverse position and the route is set for rail traffic movements to depart the North West Link via East Fork.

The Trailing Point Indicators (TPI) will display either a "white arrow" aspect or two red vertical lights depending on which way the points are set. The normal indication will be for the AM, ENW and DM to be displaying a "white arrow" while ANE and ENE will be displaying two red vertical lights.

The normal indications will be for the A MLI to be displaying a "Pulsating white", D MLI to be displaying a "Steady Yellow" while DNW MLI and 'E' MLI will be displaying a red light.

Push button panels are provided near the MLI's. The push button panels are secured by an SL lock.

2.20.2 Parkes SCT Siding

The SCT Parkes siding is located on the Up side of the Main Line at 451.867km and the interlocked points and the derail device located on the siding are operated by a ground frame.

A bar type mechanical point indicator is provided adjacent to the points and will normally display a white bar angled at 45 degrees to indicate that the Main Line points are set and locked in the normal position.

Frame A is located on the Up side of the Main Line adjacent to the mechanical point indicator and provides access to and from the Main Line at the western end of the SCT siding.

Frame A is unlocked by an Annett key that is released from a duplex lock located in the operator's hut located next to the ground frame on the Up side of the line. The top lock of the duplex lock is released by an Operator's Key and this will release the Annett key from the bottom lock, which is then used to unlock Frame A.

2.20.3 Parkes North West Link

The push button panel at 'A' MLI contains three push buttons (MAIN CLEAR, PARKES NORTH WEST LINK CLEAR and INDICATOR CANCEL).

The push button panel at 'D' MLI contains three push buttons (GOOBANG JUNCTION CLEAR, PARKES NORTH WEST LINK CLEAR and INDICATOR CANCEL).

The push button panel at DNW MLI contains two push buttons (INDICATOR CLEAR and INDICATOR CANCEL).

The push button panel at' 'E MLI contains three push buttons (UP DIRECTION CLEAR, DOWN DIRECTION CLEAR and INDICATOR CANCEL).

The shunters push button panel adjacent to 'E' MLI containing two push buttons (INDICATOR CLEAR and INDICATOR CANCEL) to enable the clearing of a "white arrow" aspect on 'E' MLI.

To enable operation of all push buttons the operator's key must be inserted and turned in the slot provided. Any push buttons should be depressed for two seconds when in use. All push button units must be kept closed and secured by an SL lock when not in use.

A green LED labelled “Points Free” is provided in the applicable push button panels to indicate that the points are free to operate. The LED will be extinguished when the points are unavailable; the LED will flash while the points are timing out and the LED will become steady when the points are available (“Points Free” to operate).

Where the push button panel operates points and indicators requiring authority to be given between the PNWY Coordinator and users of the ARTC network, the push button inscriptions will contain the command “Do not operate unless in possession of a train order to proceed” or “Do not operate without a proceed authority from the PNWY Coordinator” respectively.

If a rail traffic movement is set into or out of the North West Link or if a rail traffic movement is set into or out of the East Fork and the rail traffic movement does not proceed, the person setting the rail traffic movement should restore all points (A points, D Points, E Points) to their normal positions in order to restore isolation between the North West Link (Siding) and East Fork and Main line (running lines). If the points fail to normalise, the ARTC Network Controller and the PNWY Coordinator shall be notified. Refer to Safety Interface Agreement IA99 for further details.

All MLI’s situated on the Main Line will normally display an aspect allowing rail traffic to proceed through on the Main Line. For movements into North West Link (siding), rail traffic must stop and operate a push button.

The points are provided with a self-normalising feature. When set in the reverse position after a train 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.

Through Movements

‘A’ MLI will normally display a pulsating white aspect and the Main Line Trailing Point Indicators (AM and DM) will display a white arrow. ‘D’ MLI will normally display a yellow aspect.

A yellow aspect on ‘D’ MLI advises that the Frame A Mechanical points indicator or signal GJ150 may be displaying a stop aspect.

Entry into the North West Link down direction via East Fork (From ‘A’ MLI)

Obtain authority from the PNWY Coordinator to enter the North West Link - Refer to Safety Interface Agreement IA99 for further details.

Press the ‘A’ MLI “INDICATOR CANCEL” button to replace the opposing indicators to stop.

NOTE: Operating ‘A’ MLI “INDICATOR CANCEL” pushbutton replaces when set, ‘A’MLI, DNW MLI, ‘D’ MLI, ‘E’ MLI, AM, DM, ANE, ENE and ENW points indicators to stop.

After two minutes the points will become free to operate for the North West Link. The Competent Worker must ensure that a steady “POINTS FREE” light is displayed and then press the ‘A’ MLI “PARKES NORTH WEST LINK CLEAR” button. Once the points have completed their movement (A points and E points); the points free indication will be extinguished, ‘A’ MLI will display a steady red light, with angled white lights and ENE TPI will display a white left-hand arrow allowing movement into the East Fork. Coopers Road Level Crossing will operate on the approach of the train and restore after the passage of the train.

To cancel the movement into the North West Link, press the ‘A’ MLI “INDICATOR CANCEL” button, which will restore ‘A’ MLI to stop and the points free light will flash. After two minutes the points free light will become steady and a further 45 seconds later the points will normalise and the indicators for the Main Line will clear.

NOTE: E points will not become available when the section between 'A' MLI and ENE points indicator is occupied.

Entry into the North West Link up direction (From 'D' MLI)

Obtain authority from the PNWY Coordinator to enter the North West Link - Refer to Safety Interface Agreement IA99 for further details.

Press the 'D' MLI "INDICATOR CANCEL" button to replace the opposing indicators to stop.

NOTE: Operating 'D' MLI "INDICATOR CANCEL" pushbutton replaces when set, 'D' MLI, 'A' MLI, DNW MLI, 'E' MLI, AM, ANE, ENE, ENW and DM points indicators to stop.

After 2 minutes the points will become free to operate for the North West Link. The Competent Worker must ensure that a steady "POINTS FREE" light is displayed and then press the 'D' MLI "PARKES NORTH WEST LINK CLEAR" button. Once the points have completed their movement (D points); the points free indication will be extinguished, 'D' MLI will display a steady red light with angled white lights, allowing movement into the North West Link.

To cancel the route into the North West Link, press the 'D' MLI "INDICATOR CANCEL" button, which will restore 'D' MLI to stop and the points free light will flash. After two minutes the points free light will become steady and a further 45 seconds later the points will normalise and the indicators for the Main Line will clear.

Exit from the North West Link up direction via East Fork (From 'E' MLI)

Obtain a Shunt Order for SCT Parkes.

Press the 'E' MLI "INDICATOR CANCEL" button to replace the opposing indicators to stop.

NOTE: Operating 'E' MLI "INDICATOR CANCEL" pushbutton replaces when set, 'A' MLI, 'D' MLI, DNW MLI, 'E' MLI, AM, DM, ENE, ANE and ENW points indicators to stop.

After two minutes the points will become free to operate for the East Fork to the Main Line. The Competent Worker must ensure that a steady "POINTS FREE" light is displayed and then press the 'E' MLI "UP DIRECTION CLEAR" button. Once the points have completed their movement (A points & E points), the points free indication will be extinguished, 'E' MLI will display a steady red light with angled white lights and ANE points indicator will display a right-hand arrow and the "UP DIRECTION SET" light will illuminate.

Coopers Road level crossing will operate on the approach of the train and restore after the passage of the train.

To cancel the route movement out of the North West Link, press the 'E' MLI "INDICATOR CANCEL" button, 'E' MLI will restore to stop, the points free light will flash, and the level crossing will cancel operation after two minutes. After two minutes the points free light will become steady and a further 45 seconds later the points will normalise and the indicators for the Main line will clear.

Exit from the North West Link in the down direction (From 'E' MLI)

- Obtain a Train Order with shunt access for SCT Parkes.
- Press the 'E' MLI "INDICATOR CANCEL" button to replace the opposing indicators to stop.

NOTE: Operating 'E' MLI "INDICATOR CANCEL" pushbutton replaces when set, 'A' MLI, 'D' MLI, DNW MLI, 'E' MLI, AM, DM, ENE, ANE and ENW points indicators to stop.

After two minutes the points will become free to operate for the Main Line. The Competent Worker must ensure that a steady “POINTS FREE” light is displayed and then press the ‘E’ MLI “DOWN DIRECTION CLEAR” button. Once the points have completed their movement (D points); the points free indication will be extinguished, ‘E’ MLI will display a steady yellow and DNW MLI will display a pulsating white aspect and the “DOWN DIRECTION SET” light will illuminate.

To cancel the route out of the North West Link, press the ‘E’ MLI “INDICATOR CANCEL” button, ‘E’ MLI will restore to stop and the points free light will flash. After two minutes the points free light will become steady and a further 45 seconds later the points will normalise and the indicators for the Main Line will clear.

Exit from the North West Link in the down direction (From DNW MLI)

The procedure for trains shorter than 1100m standing at DNW MLI for down direction movements exiting the North West Link is as follows.

- Obtain a Train Order with shunt access for SCT Parkes.
- Press the DNW MLI “INDICATOR CANCEL” button to replace the opposing indicators to stop.

NOTE: Operating DNW MLI “INDICATOR CANCEL” pushbutton replaces when set, ‘A’ MLI, ‘D’ MLI, DNW MLI, ‘E’ MLI, AM, ENE, ANE and ENW and DM points indicators to stop.

After two minutes the points will become free to operate for the Main line. The Competent Worker must ensure that a steady “POINTS FREE” light is displayed and then press the DNW MLI “INDICATOR CLEAR” button. Once the points have completed their movement (D points), the points free indication will be extinguished and DNW MLI will display a pulsating white to indicate that the points are in the correct position. The points will be self-restored to normal once they become free.

To cancel the movement out of the North West Link, press the DNW MLI “INDICATOR CANCEL” button. DNW MLI will restore to stop and the points free light will flash. After two minutes the points free light will become steady and a further 45 seconds later the points will normalise and the indicators for the Main line will clear.

Entry into the Parkes North West Yard (PN siding number 1) from the Down direction (From signal GJ153)

Obtain authority from the PNWY Coordinator to enter the North West Link - Refer to Safety Interface Agreement IA99 for further details.

GJ153 signal is then cleared by the Network Controller to allow rail traffic to proceed into Parkes NW Yard and PN siding number 1.

Exit from the Parkes North West Yard (PN siding number 1) in the Up direction towards Goobang Junction (From signal GJ156)

GJ156 signal is cleared by the Network Controller to allow rail traffic to depart Parkes NW link and PN siding number 1.

NOTE: For instructions to enter or exit via the Parkes NW Link track from or towards Nanardine, refer to the Network Information Book OGW-30-23 Goobang Junction (exc) to Dubbo (exc) and Turrawan (exc) to North Star (inc) & Camurra West.

Operation of Pacific National PNWY Yard

The Pacific National PNWY Yard consists of an ARTC Main Line siding (Dead End) and two additional sidings with manually operated points. A stop block is fitted to the ARTC Main Line siding (Dead End) at 450.292 km. Manually operated catch points are fitted to the southern end of PNWY Siding (1) at 453.032km. The operation of the Pacific National PNWY Yard will be covered in the Pacific National PNWY Yard Shunting Operations Manual. All persons requiring access to the PNWY will need to be inducted to the yard operation by Pacific National.

Coopers Road Level Crossing

Type “F” flashing lights, half booms and bells are provided at the Coopers Road level crossing at 453.545km on the East Fork.

The level crossing warning equipment will operate on the approach of a train utilising axle counter rail vehicle detection.

Type “F” level crossing trackside signs with Axle Counter Signs on the same post are located at:

- Down direction 453.287 km on the East Fork
- Up direction 453.835 km on the East Fork.

Testing of Level Crossing Warning Equipment

The level crossing will be remotely monitored from the Network Control Centre South (NCCS) by the 4Site (Cerberus) Alarm Monitoring System. There is a Cerberus unit for the road crossing.

Failure of the Cerberus monitoring equipment

In the event of a failure of the Cerberus monitoring equipment a daily test must be implemented by the Signal Electrician Parkes in accordance with ARTC Network Rule ANGE 218 Type F Level Crossing Management.

‘Test’ switch boxes are located on the outside of the Level Crossing Equipment Hut and are opened by the test key obtained from the ARTC Provisioning Centre at Parkes.

Emergency operation of the level crossing warning equipment

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’, Procedures ANPR 715 ‘Protecting Type F level crossings’ and ANPR 717 ‘Using Emergency Roadside Warning Equipment’.

Manual operation of level crossing 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 Workers in accordance with ARTC Network Rule ANGE 218 ‘Type F Level Crossing Management’, Procedures ANPR 715 ‘Protecting Type F Level Crossings’.

Axle Counters

If an axle counter still 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 procedure ESI-05-03 axle counter TOW territory. Reset panels are mounted externally to the following signalling equipment rooms:

- Coopers Road Level Crossing (CS RD)
- D Points Location (D PTS).

Locations of Train Order Working Signs

The location of the Train Order Working Signs at SCT Parkes are shown below:

- Down Yard Limit sign and Begin Train Order Working Sign on the Main Line at 451.792km.
- Begin Train Order Working Sign (up direction) on East Fork at 453.287km.
- End Train Order Working Sign (down direction) on East Fork at 453.287km.
- Begin Train Order Working Sign (down direction) on North West Link at 454.300km.
- End Train Order Working Sign (up direction) on North West Link at 454.300km.
- Down Shunt Limit Sign on the Main Line at 458.000km
- Up Yard Limit Sign on the Main Line at 458.500km
- Up Location Sign at on the Main Line 461.000km

Shunt Limit Sign

A Shunt Limit Sign is located on the Down side of the Main line 500m on the Parkes side of the Up Yard Limit Sign for SCT Parkes location. The Sign is inscribed “Shunt Limit” and applies to shunting movements in the Down direction on the Main Line. Drivers must not proceed beyond the Shunt Limit Sign unless in possession of a Train Order authorising the train to enter the SCT Parkes – Gunningbland section.

Special Instructions

The SCT siding, the storage sidings within the SCT Terminal, the North West Link and the sidings within the PNWY are not deemed to be in train order territory and therefore a train order is not required to shunt within these sidings.

NOTE: A train order is necessary to enter or exit SCT sidings and North West Link.

Access to and exit from the SCT siding and North West Link must only be authorised by:

- either a shunt order;
- or a train order with shunt access (the order must be issued to the Main Line with shunt access authorised) if the train is to enter the SCT sidings from the Gunningbland end or the North West Link from the Main Line or the East Fork.

The order must not be fulfilled until the train has:

- (for SCT sidings) cleared the Main line and the East Fork and Frame A (mechanical) points and A points (electric) have been restored to the normal position.
- (for North West Link) cleared the Main Line and the East Fork and the E points and D points have been restored to the normal position.

Rail Traffic Crews must not operate:

- Frame A, or
- ‘A’ MLI push buttons, or
- ‘D’ MLI push buttons, or
- ‘E’ MLI push buttons, or
- permit any portion of their train or a vehicle to obstruct the Main line unless an order has been issued authorising the train to occupy the Main Line.

2.20.4 Shunting SCT Parkes from Parkes (Goobang Junction) Yard

When a train is required to shunt the siding at SCT Parkes from Parkes (Goobang Junction) yard, a shunt order must be issued for a train to enter or exit the siding at SCT Parkes.

When a train is required to shunt the North West Link siding at SCT Parkes from Parkes (Goobang Junction) Yard, a shunt order must be issued for a train to enter or exit the North West Link siding at SCT Parkes and the PNWY Coordinator must provide a proceed authority to enter PNWY.

These shunt orders will authorise a shunting train to conduct multiple shunting movements between Parkes (Goobang Junction) Yard and the sidings at SCT Parkes.

Special Conditions when it is necessary to shunt SCT Parkes with two or more trains at the same time (excluding PNWY)

When it is necessary for two or more trains to shunt SCT Parkes at the same time (excluding PNWY), it will not be necessary for the driver(s) not issued with the shunt order to read the shunt order.

The Drivers concerned must discuss the work to be carried out and come to a clear understanding of the movements required.

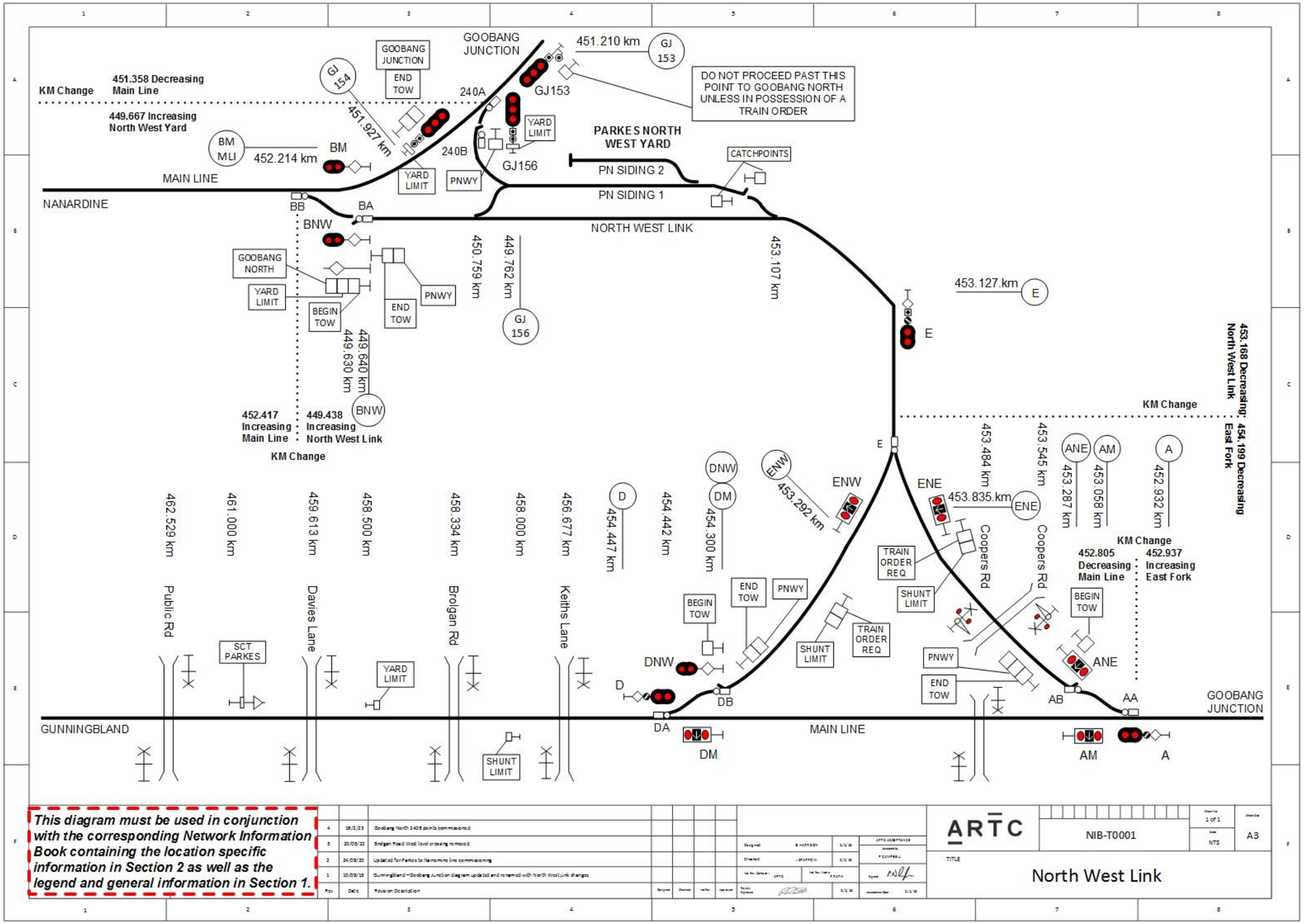
After compiling a shunt order for SCT Parkes, the Driver issued with the shunt order must contact the Network Controller controlling Parkes (Goobang Junction) yard and inform them of all details on the order.

All details must be recorded in permanent form.

Before clearing GJ149 signal for another train(s) to shunt SCT Parkes on the authority of the shunt order issued, the Network Controller controlling Parkes (Goobang Junction) Yard must contact the driver issued with the shunt order and establish that:

- the shunt order is still current
- and that the driver issued with the shunt order has given permission for the other train(s) to enter SCT Parkes on the authority of that shunt order.

NOTE *The Special Conditions when it is necessary to shunt SCT Parkes with two or more trains at the same time are limited with regard to the triangle at PNWY comprising the East Fork and the North West Link. Only one train is permitted to shunt the triangle composed of A PTS, D PTS and E PTS at any one time.*



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

Rev	Date	Revision Description
4	16/2/23	Goobang North 2405 points commissioned
3	20/05/22	Brolgan Road West level crossing removed
2	24/09/20	Updated for Parkes to Narromine line commissioning
1	10/09/18	Gunningbland – Goobang Junction diagram updated and renamed with North West Link changes

ARTC

NIB-T0001

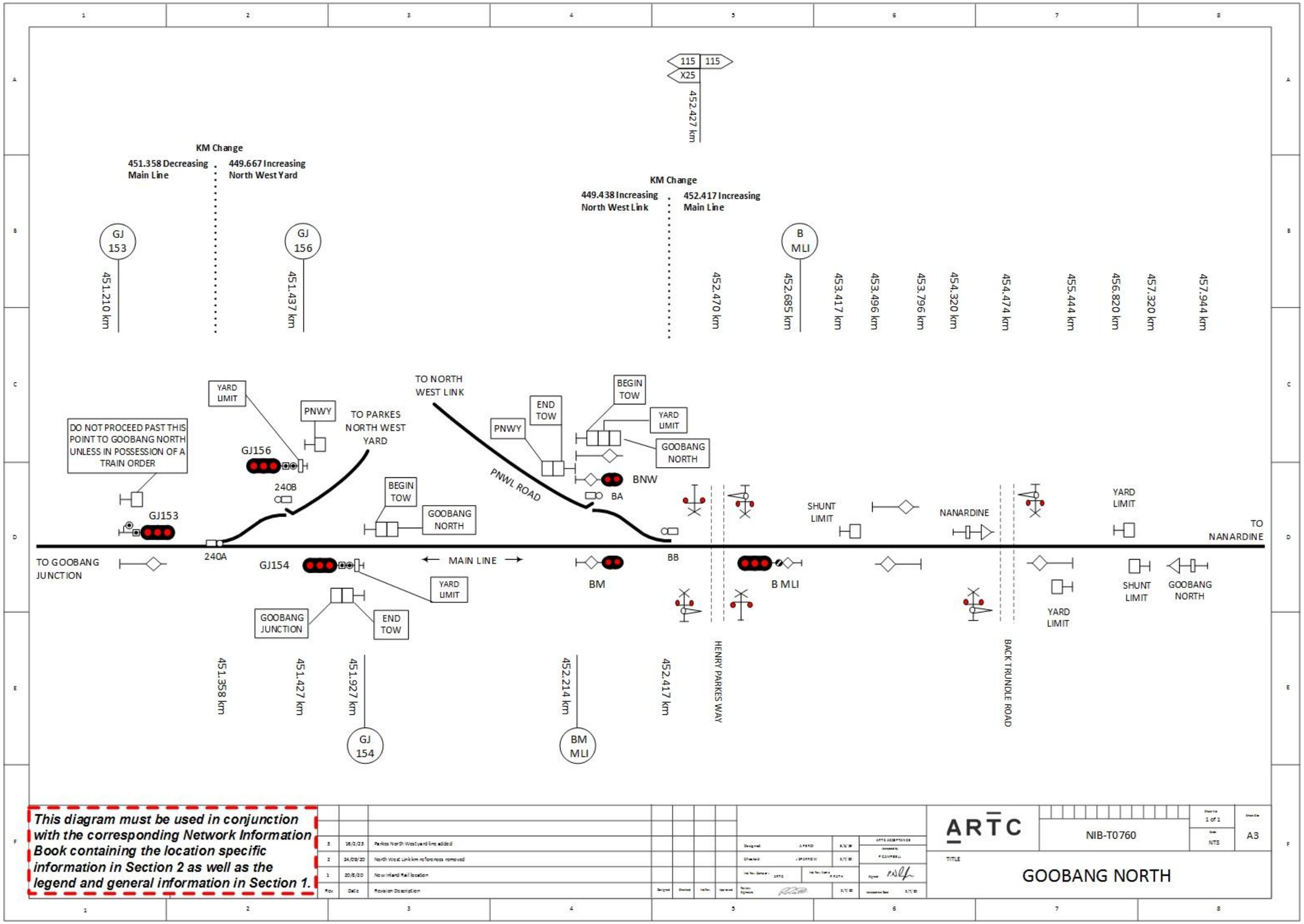
Sheet No 1 of 1

Scale NTS

Sheet Size A3

TITLE

North West Link


115
115
X25
452.427 km
KM Change
451.358 Decreasing
Main Line
449.667 Increasing
North West Yard
KM Change
449.438 Increasing
North West Link
452.417 Increasing
Main Line
GJ 153
451.210 km
GJ 156
451.437 km
B MLI
452.685 km
452.470 km
453.417 km
453.496 km
453.796 km
454.320 km
454.474 km
455.444 km
456.820 km
457.320 km
457.944 km
YARD LIMIT
PNWY
TO PARKES NORTH WEST YARD
DO NOT PROCEED PAST THIS POINT TO GOOBANG NORTH UNLESS IN POSSESSION OF A TRAIN ORDER
GJ156
240B
GJ153
240A
TO NORTH WEST LINK
PNWY
END TOW
BEGIN TOW
YARD LIMIT
GOOBANG NORTH
BNW
BA
PNWL ROAD
BEGIN TOW
GOOBANG NORTH
SHUNT LIMIT
NANARDINE
YARD LIMIT
TO NANARDINE
TO GOOBANG JUNCTION
GJ154
MAIN LINE
YARD LIMIT
BM
BB
B MLI
SHUNT LIMIT
GOOBANG NORTH
GOOBANG JUNCTION
END TOW
YARD LIMIT
451.358 km
451.427 km
451.927 km
GJ 154
452.214 km
BM MLI
452.417 km
HENRY PARKES WAY
BACK TRUNDLE ROAD
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 16/2/23 Parkes North West yard line added
2 24/09/20 North West Link km references removed
1 20/8/20 New Inland Rail location
Rev Date Revision Description
ARTC
NIB-T0760
1 of 1
NTS
A3
TITLE
GOOBANG NORTH

2.21 Goobang Junction (GBJ)

General Arrangements

Standing Room

- 1941m

Branch Line

- 1105m

Goods Siding

- Yes, goods siding length unknown
- Crossing loop 1883m

Refer Safety Interface Agreements IA3000.02 & IA3000.01 for further details.

Ground Frames

Frame N

Access to No. 1 siding East end

Frame P

Access to No. 1 siding West end

Frame R

Can be used to cross over from branch line to loop line in either direction.

Frame Q

For crossing over from the main line to the loop line.

2.21.1 Goobang Junction South

Newell Highway level crossing at Welcome (624.908km)

For rail traffic travelling in both the Up and Down directions, the level crossing will activate following occupation of the approach section, beyond the trackside level crossing approach warning signs.

The level crossing is configured as a Predictor Level Crossing in the Down Direction. Rail traffic must not accelerate after passing the approach trackside warning sign in accordance with ANGE 216 Level Crossings.

The level crossing will cease to operate when the rail traffic clears the level crossing.

An MLI for Up direction rail traffic movements is located at 625.121km and is fitted with Push Buttons.

Newell Highway level crossing at Tichborne (617.767km)

Type F flashing lights, half booms and audible warning devices are provided at this predictor configured level crossing. Trackside signage is located at 616.154km in the Down direction and 619.380km in the Up direction.

The level crossing location with a manual operation switch is on the Up side at 617.767km.

2.21.2 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. These are at GJ 120 signal at 627.500 km or GJ 127 signal at 446.950 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 placing 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.

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 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 the Operational Interfaces or the worksite is located within 500m of the Operational Interfaces, separate TOAs must be issued by the UGLRL Network Control Officer and the ARTC Network Controller.

Track Work Authorities (TWA)

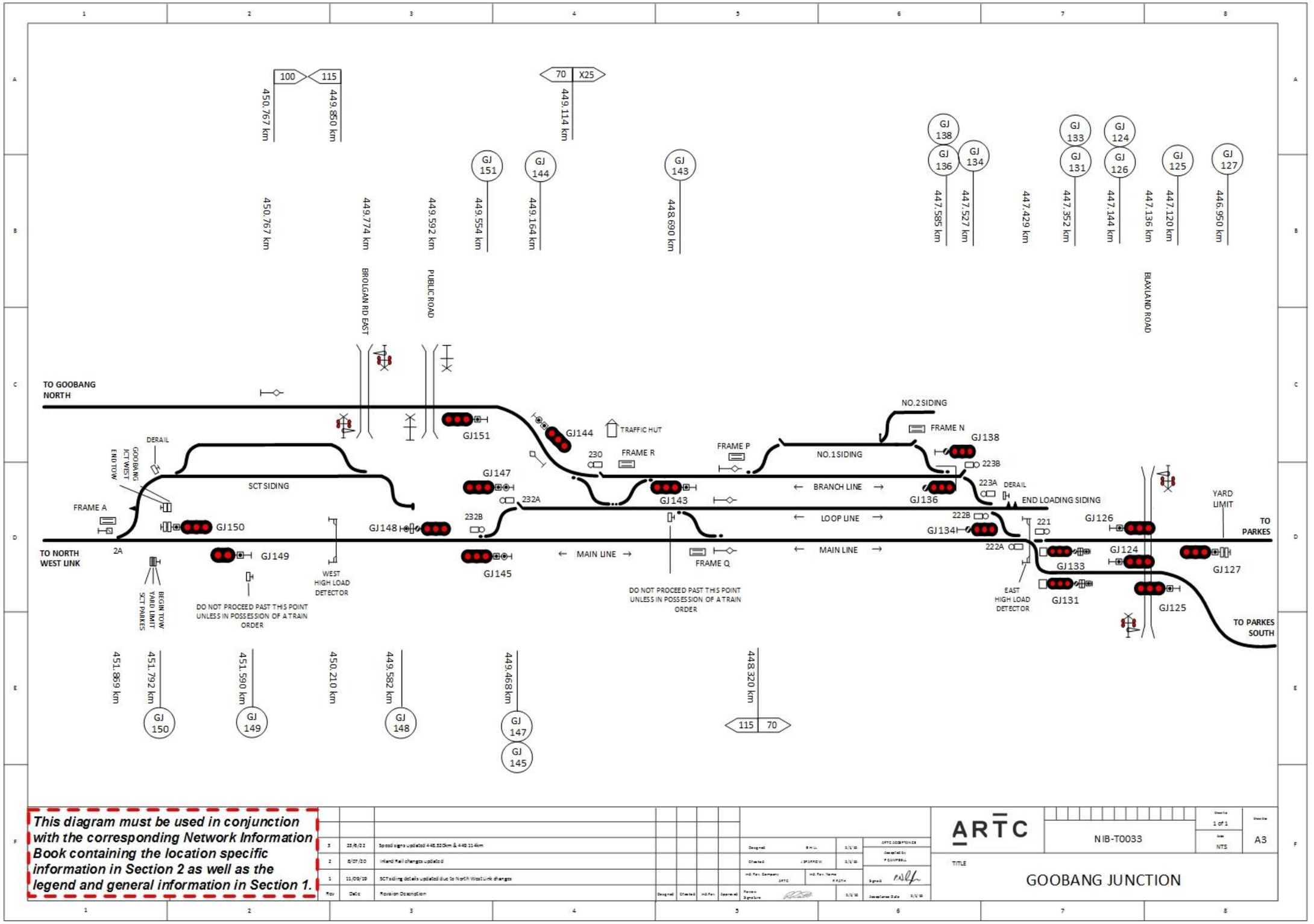
The ARTC Network Controller is responsible for implementing a TWA when a worksite is established on the ARTC Network up to the Operational Interfaces.

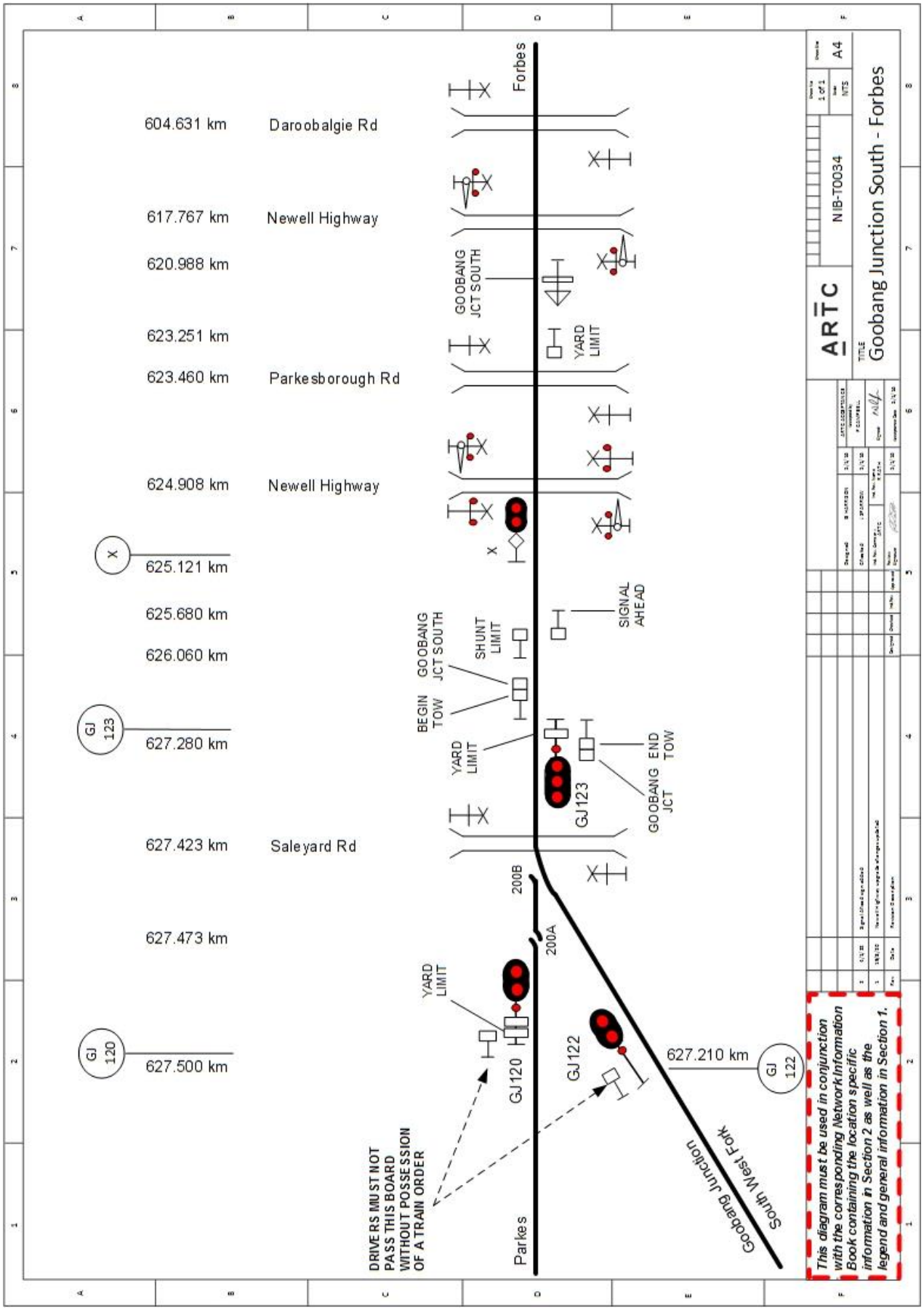
The UGLRL Network Control Officer is responsible for implementing a TWA when a worksite is established on the CRN Network up to the Operational Interfaces.

TWAs must not extend beyond the Operational Interfaces.

Route Control Blocking (RCB)

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


100
115
450.767 km
449.850 km
70
X25
449.114 km
GJ 151
GJ 144
GJ 143
449.554 km
449.164 km
448.690 km
GJ 138
GJ 136
GJ 134
GJ 133
GJ 131
GJ 124
GJ 126
GJ 125
GJ 127
447.585 km
447.527 km
447.429 km
447.352 km
447.144 km
447.136 km
447.120 km
446.950 km
450.767 km
449.774 km
449.592 km
BROLGAN RD EAST
PUBLIC ROAD
BLAXLAND ROAD
TO GOOBANG NORTH
DERAIL
GOOBANG ICT WEST END TOW
SCT SIDING
FRAME A
GJ150
GJ149
GJ148
GJ147
GJ145
GJ144
GJ143
GJ138
GJ136
GJ134
GJ133
GJ131
GJ126
GJ124
GJ125
GJ127
TRAFFIC HUT
FRAME R
FRAME P
FRAME N
FRAME Q
NO.2 SIDING
NO.1 SIDING
BRANCH LINE
LOOP LINE
MAIN LINE
223B
223A
232A
232B
222B
222A
221
230
2A
TO NORTH WEST LINK
WEST HIGH LOAD DETECTOR
DO NOT PROCEED PAST THIS POINT UNLESS IN POSSESSION OF A TRAIN ORDER
EAST HIGH LOAD DETECTOR
END LOADING SIDING
YARD LIMIT
TO PARKES
TO PARKES SOUTH
BEGIN TOW
YARD LIMIT SCT PARKES
451.869 km
451.792 km
451.590 km
450.210 km
449.582 km
449.468km
448.320 km
115
70
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.
Rev
Date
Revision Description
3
25/8/22
Speed signs updated 448.320km & 449.114km
2
8/07/20
Inland Rail changes updated
1
11/09/19
SCT siding details updated due to North West Link changes
ARTC
NIB-T0033
1 of 1
NTS
A3
TITLE
GOOBANG JUNCTION


Forbes
604.631 km
Daroobalgie Rd
617.767 km
Newell Highway
620.988 km
GOOBANG JCT SOUTH
623.251 km
YARD LIMIT
623.460 km
Parkesborough Rd
624.908 km
Newell Highway
X
625.121 km
625.680 km
SHUNT LIMIT
SIGNAL AHEAD
626.060 km
GOOBANG JCT SOUTH
BEGIN TOW
GJ 123
627.280 km
YARD LIMIT
GJ123
END TOW
GOOBANG JCT
627.423 km
Saleyard Rd
200B
627.473 km
200A
YARD LIMIT
GJ 120
627.500 km
GJ120
GJ122
627.210 km
GJ 122
DRIVERS MUST NOT PASS THIS BOARD WITHOUT POSSESSION OF A TRAIN ORDER
Parkes
Goobang Junction South West Fork
ARTC
NIB-T0034
TITLE
Goobang Junction South - Forbes
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.22 Mountain Industries Siding (FRA)

General Arrangements

Standing Room

- N/A

Goods Siding

- Yes, goods siding, private siding 395m

Other

This is a siding within the Forbes location in TMACS territory.

Refer Safety Interface Agreement IA1115 for further details.

Operating Procedure

Mountain Industries siding is an intermediate siding located in the safeworking section Forbes to Parkes. The siding has a hard stand area of 320m.

Rail Traffic Entering the Siding

Rail traffic requiring entry to the Mountain Industries siding at Forbes must have permission from Mountain Industries prior to requesting permission from ARTC.

The network controller may direct the qualified worker (train crew) to secure the rail traffic within the siding and transfer the proceed authority to the end of the section to allow the passage of other rail traffic movements.

Rail Traffic Departing the Siding

If not still in possession of the proceed authority for the section, the qualified worker (train crew) must proceed to the end of the section and contact the network controller at NCCS and obtain a proceed authority for the movement.

Track Work Operations

Track work operations likely to affect the ARTC Network must be performed in accordance with ARTC Network Rules and Procedures by suitably qualified workers.

Track work operations not affecting the ARTC Network will be performed in accordance with Mountain Industries or its maintainer’s procedures.

Ground Frames

Access to the Mountain Industries siding is via ground frame “G” at the Forbes end and ground frame “H” at the Parkes end. The ground frames are released by operator’s key and must be operated in accordance with ARTC Network Rules and Procedures.

2.23 Forbes (FRB)

General Arrangements

Forbes is a Train Order Working location which includes Red Bend and Mountain Industries Siding. The Grain Sidings 1 and 2 and Loading Siding at Red Bend and the Silo / Grain siding and Mountain Industries siding at Forbes are clear of Train Order Territory.

Trains shunting at Red Bend and Forbes will require a Shunt Order when shunting moves are required.

Shunting of the Forbes Silo / Grain Siding is facilitated by obtaining Duplex Lock F.

Silo / Grain Siding 203m

Maintenance Siding 340m

Emergency Equipment Boxes

Emergency Equipment Boxes (EEB) are located adjacent to the Down side of the Main Line at 599.935km, 597.293km and 592.803km.

Operation of Points and Main Line Indicators

A Mechanical Point Indicator (MPI) is installed on Frame F at 597.780km.

Main Line Indicator (MLI) 'X' with a push button located on 'X' MLI post is installed at 597.190km facing Up direction rail traffic.

A Shunter's Push Button is located at 597.190km on a separate post.

A Duplex Lock is installed at Frame F, labelled 'Duplex Lock F'. This Duplex lock houses a Fortress Key for Frame F.

The Fortress Lock on Frame F is operated by the Fortress Key from Duplex Lock F.

The Up approach for the Newell Highway Level Crossing is at 597.940km.

The Down approach for the Newell Highway Level Crossing is at 596.433km.

Newell Highway Level Crossing

Type F flashing lights with booms, audible warning devices and active pedestrian crossing are provided at Newell Highway level crossing at 597.147km.

For trains required to shunt the siding and cross the Newell Highway level crossing, a Competent Worker must operate the Shunter's push button at 590.197km.

For Up trains entering the Forbes Silo siding, the Newell Highway level crossing will cancel after two minutes once Duplex Lock F has been operated. Reinstatement of Duplex Lock F will allow for the re-clearing of 'X' MLI provided the main line is clear of rail vehicles and providing there are no other Duplex Locks taken.

For Up Departing trains standing at 'X' MLI, the MLI may be cleared by the 'CLEAR' MLI push button following reinstatement of Duplex Lock F. The Newell Highway level crossing will operate for a period of 15 seconds before the 'X' MLI will clear.

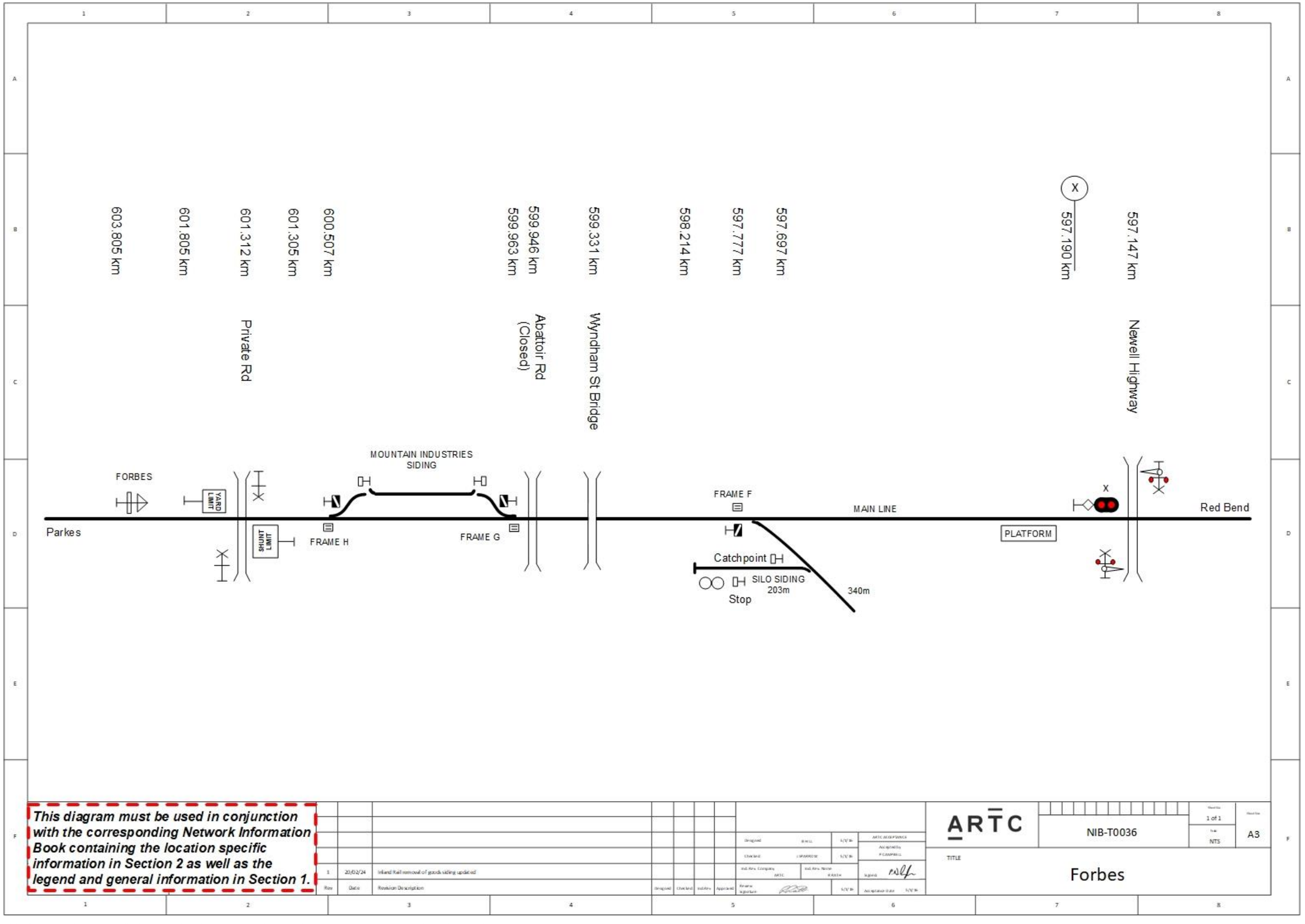
For Down trains entering the Forbes Silo siding, the level crossing will cancel automatically once the train is clear of the level crossing.

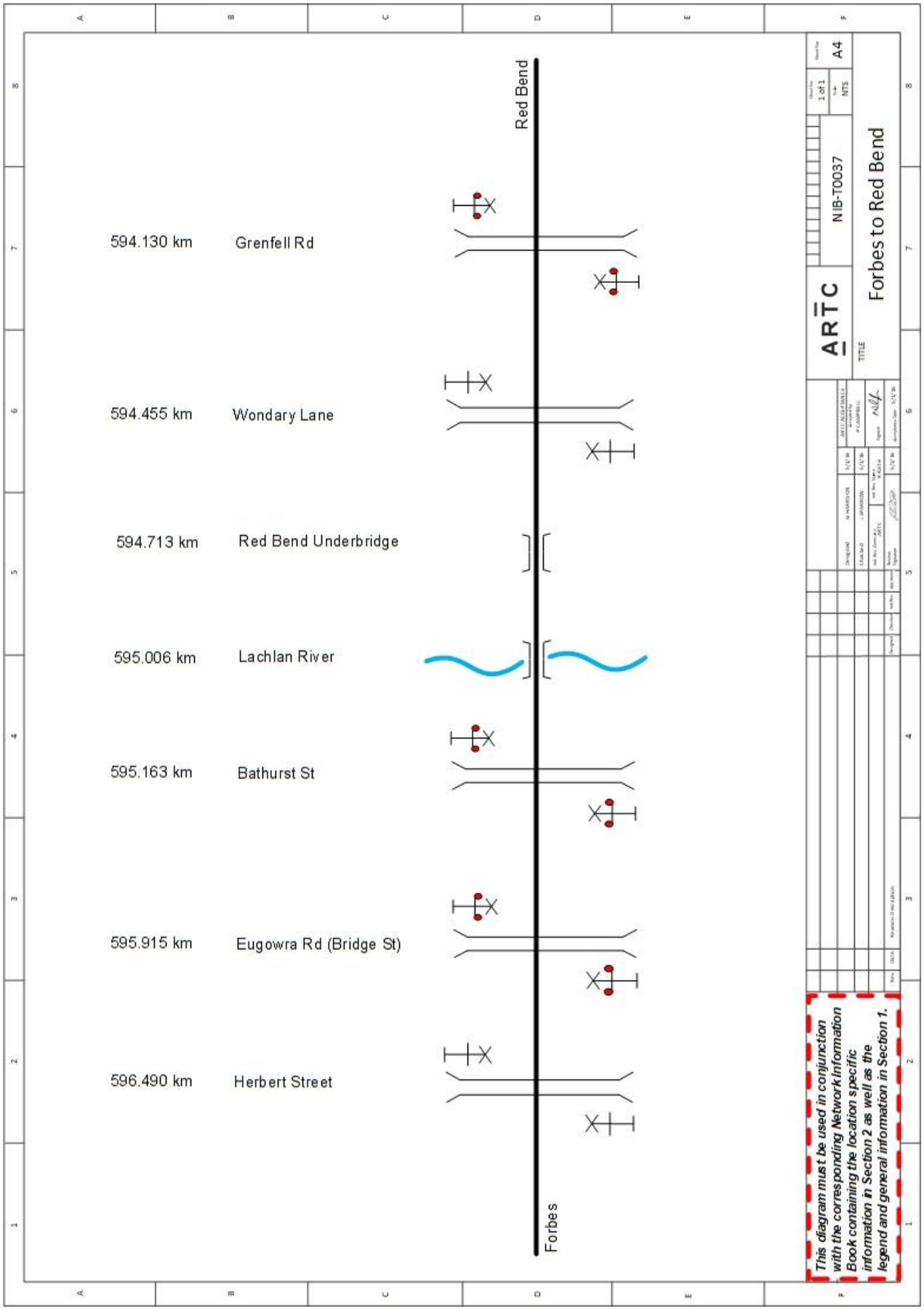
For Down trains departing the Forbes Silo siding, the operation of Duplex Lock F will cancel the operation of the Newell Highway level crossing after 2 minutes.

Reinstatement of Duplex Lock F will allow for the normal approach operation of the Newell Highway level crossing providing there is no other Duplex Locks taken.

For Down ‘Through’ trains, the operation of Type F level crossings at Grenfell Road located at 594.130km, Bathurst Street located at 596.163km and Eugowra Road located at 595.915km will remain unchanged. The Newell Highway level crossing will commence operation at the Level Crossing Approach warning sign located at 596.433km.

For Up ‘Through’ trains, the operation of the Newell Highway level crossing will commence at the Level Crossing Approach warning sign located at 597.940km, provided that ‘X’ MLI is displaying a pulsating white aspect. The operation of Eugowra Road, Bathurst Street and Grenfell Road will remain unchanged.


597.147 km
Newell Highway
X
597.190 km
597.697 km
597.777 km
598.214 km
599.331 km
Wyndham St Bridge
599.946 km
599.963 km
Abattoir Rd
(Closed)
600.507 km
601.305 km
601.312 km
Private Rd
601.805 km
603.805 km
MOUNTAIN INDUSTRIES
SIDING
FORBES
YARD LIMIT
SHUNT LIMIT
Parkes
FRAME H
FRAME G
FRAME F
MAIN LINE
X
Red Bend
PLATFORM
Catchpoint
SILO SIDING
203m
Stop
340m
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.
1
20/02/24
Inland Rail removal of goods siding updated
Rev
Date
Revision Description
ARTC
NIB-T0036
1 of 1
NTS
A3
TITLE
Forbes


Red Bend
594.130 km
Grenfell Rd
594.455 km
Wondary Lane
594.713 km
Red Bend Underbridge
595.006 km
Lachlan River
595.163 km
Bathurst St
595.915 km
Eugowra Rd (Bridge St)
596.490 km
Herbert Street
Forbes
A4
NTS
NIB-T0037
Forbes to Red Bend
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.

2.24 Red Bend (RDB)

General Arrangements

Standing Room

- N/A

Sidings

- Loading Siding 429 m
- Grain Siding 1 403 m
- Grain Siding 2 411 m (Dead End siding)

Other

Accessed by ground frames and non-interlocked points.

These sidings are within the Forbes location in TMACS Train Order territory.

Conditional Level Crossing Speed Limit Sign

A Conditional Level Crossing Speed sign of 10 km/hr is installed at 590.209km,

If Red Bend siding is occupied by rail traffic, the Down direction rail traffic movement must proceed at 10km/hr until the leading motive power unit has fully cleared the level crossing and may resume the normal speed allowed by the previous permanent track speed sign of 115 km/hr.

If there is no rail traffic occupying Red Bend siding, rail traffic may travel up to line speed of 115km/hr, once the Rail Traffic Crew establish that the siding is clear.

Grain Sidings

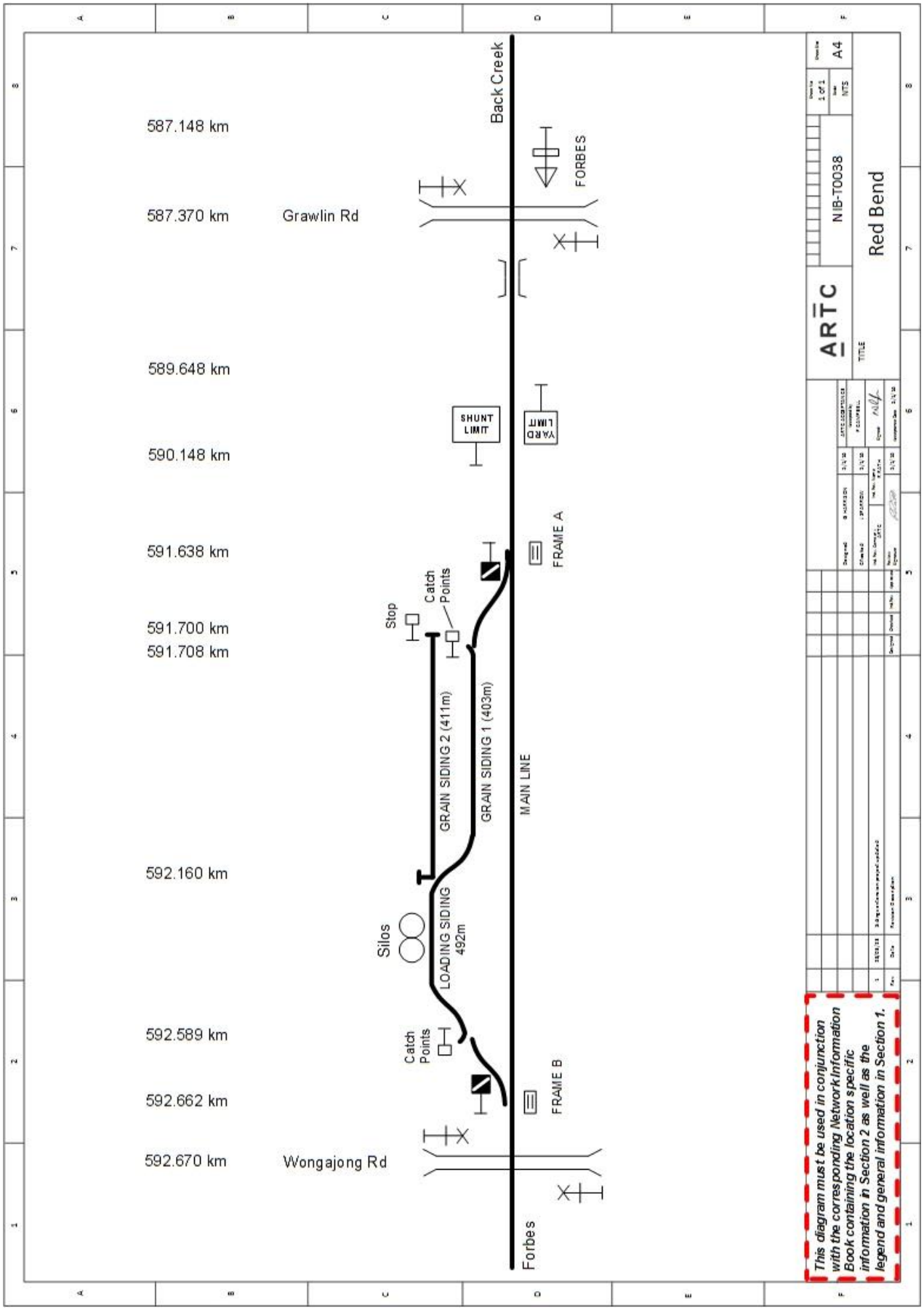
The Sidings are connected to the Main Line at the Back Creek and Forbes ends of the sidings.

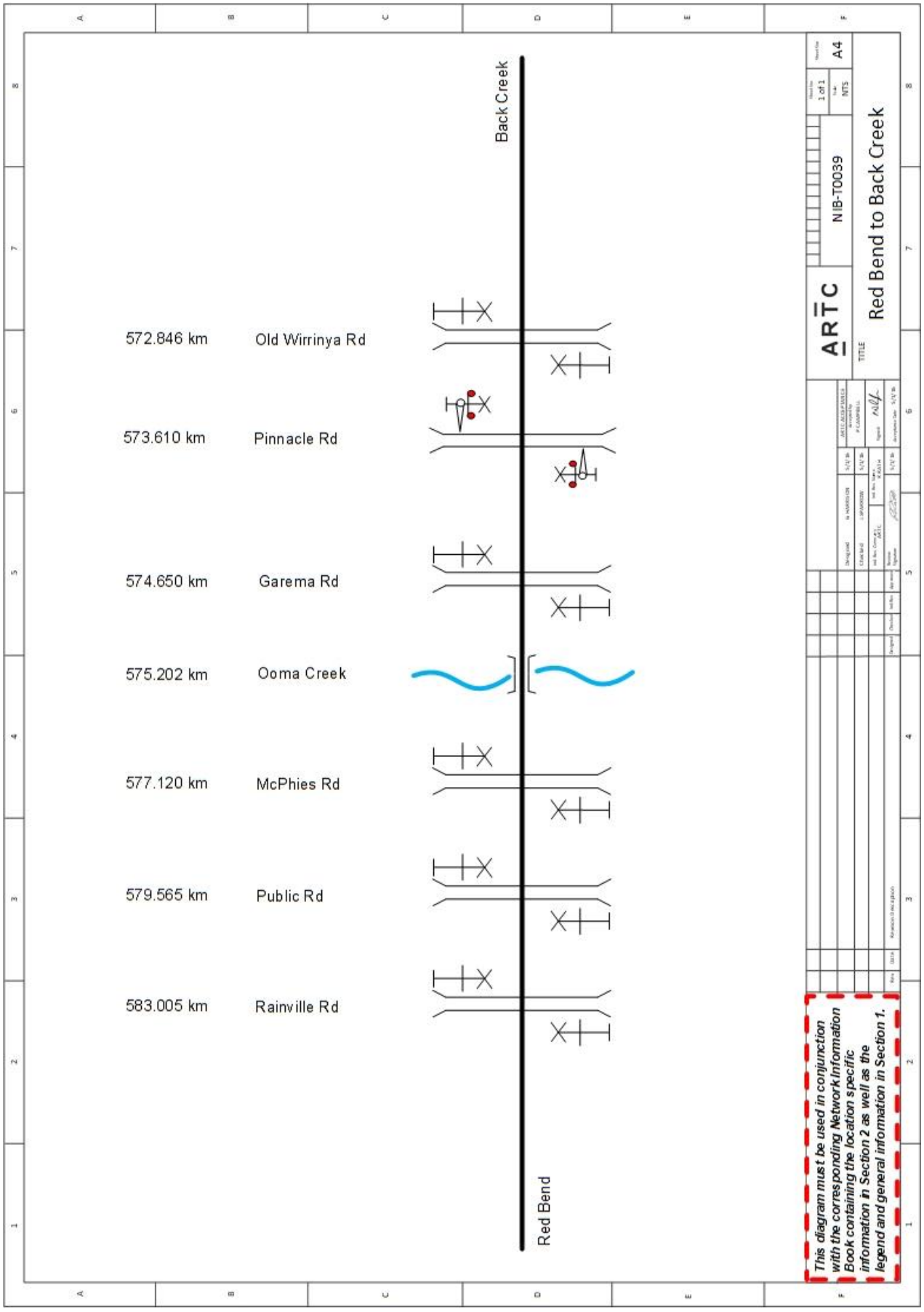
The points leading from the Main Line to Grain Siding 1 at the Back Creek end are operated from Frame A, which is located on the Up side of the Main Line.

The points leading from the Main Line to the Loading Siding at the Forbes end are operated from Frame B, which is located on the Up side of the Main Line.

Grain Siding 2 is accessed via the non-interlocked points on the Loading Siding.

NOTE: Grain Siding 2 is a dead end siding.


587.148 km
587.370 km
Grawlin Rd
589.648 km
590.148 km
591.638 km
591.700 km
591.708 km
592.160 km
592.589 km
592.662 km
592.670 km
Wongajong Rd
Back Creek
FORBES
SHUNT LIMIT
YARD LIMIT
FRAME A
Stop
Catch Points
GRAIN SIDING 2 (411m)
GRAIN SIDING 1 (403m)
MAIN LINE
Silos
LOADING SIDING 492m
Catch Points
FRAME B
Forbes
NIB-T0038
Red Bend
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.


Back Creek
572.846 km
Old Wirrinya Rd
573.610 km
Pinnacle Rd
574.650 km
Garema Rd
575.202 km
Ooma Creek
577.120 km
McPhies Rd
579.565 km
Public Rd
583.005 km
Rainville Rd
Red Bend
ARTC
NIB-T0039
Red Bend to Back Creek
A4
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.25 Back Creek (BKC)

General Arrangements

Standing Room

- N/A

Goods Siding

- 514m

Other

Accessed by ground frames.

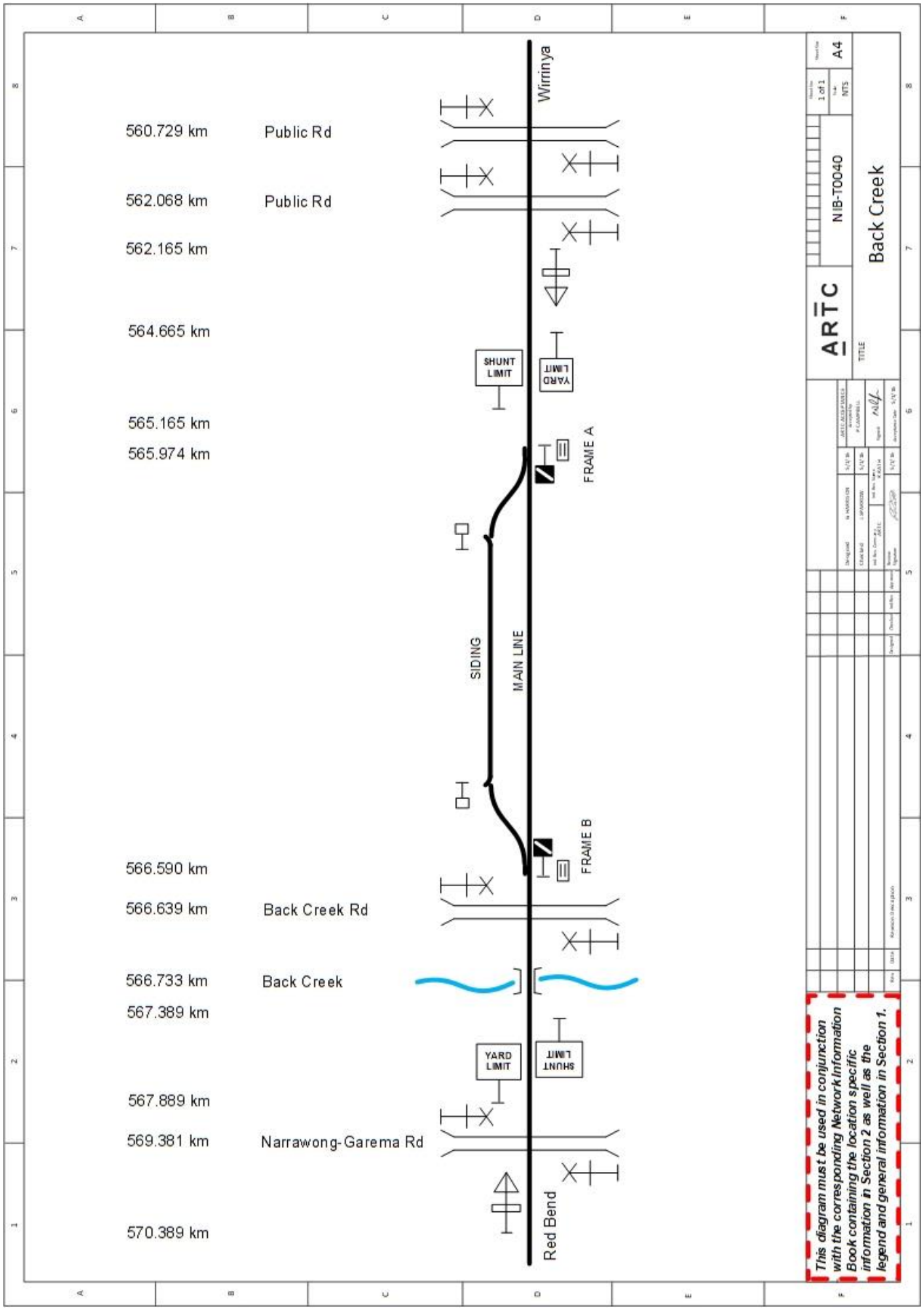
This is a siding within the Forbes location in TMACS territory.

Wheat Siding

The Wheat siding is connected to the main line at the Wirrinya and Forbes ends of the siding.

The points leading from the main line to the Wheat siding and the catchpoints in the siding at the Wirrinya end are operated from frame B, which is located on the Down side of the main line.

The points leading from the main line to the Wheat siding and the catchpoints in the siding at the Forbes end are operated from frame A, which is located on the Down side of the main line.


Wirrinya
560.729 km
Public Rd
562.068 km
Public Rd
562.165 km
564.665 km
SHUNT LIMIT
YARD LIMIT
565.165 km
565.974 km
FRAME A
SIDING
MAIN LINE
FRAME B
566.590 km
566.639 km
Back Creek Rd
566.733 km
Back Creek
567.389 km
YARD LIMIT
SHUNT LIMIT
567.889 km
569.381 km
Narrawong-Garema Rd
570.389 km
Red Bend
NIB-T0040
Back Creek
A4
NTS
TITLE
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.26 Wirrinya (WRY)

General Arrangements

Standing Room:

- 1850 metres

Siding:

- 420m

Operation of Points and Signals

Main line points are operated by pushbuttons located adjacent to MLI A, MLI B, MLI X and MLI Y.

The points leading to the siding are operated from ground frames located near the points at each end of the interlocking.

Ground Frames

Frame B

Frame B is located on the Down side of the main line between 52 points and the Y MLI point indicator and provides access to the grain siding.

To operate Frame B, open Frame B Release, insert OP1 Key and press the “Cancel” button.

After 2 minutes has elapsed, a green Points Free indication is given, allowing the Release button to be pressed, calling 52 Points Reverse.

Once 52 points is locked and detected reverse, the release of the Annette key may be given by pressing the Release Key button.

Frame C

Frame C is located on the Down side of the main line and provides access to the grain siding.

Both ground frames are released by operator keys.

To shunt grain siding set 52 points reverse before frame B is operated.

Warning: *52 points may self-normalise. Make sure 52 points are reversed before each shunt movement.*

Marsden Road Level Crossing

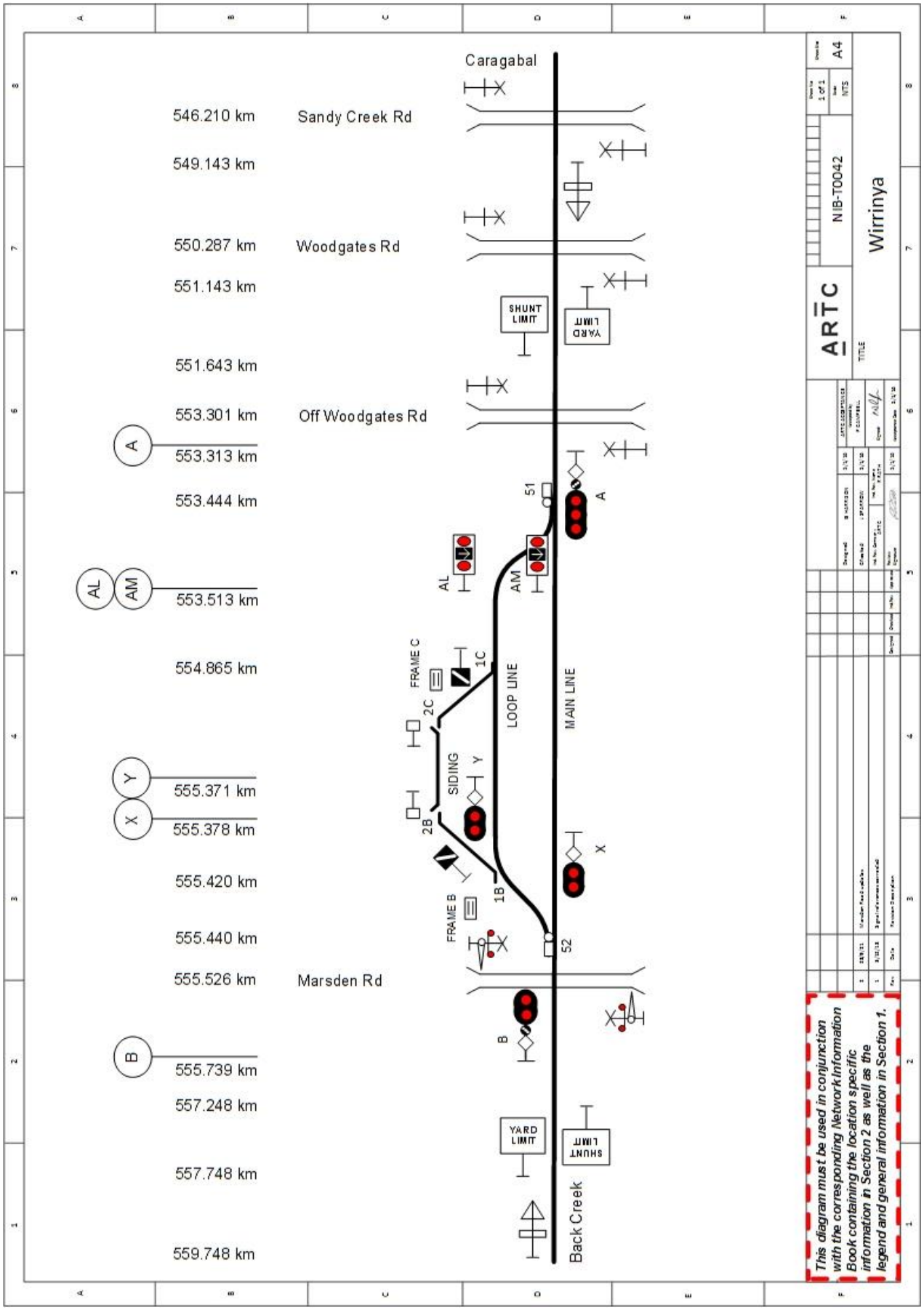
Type F level crossing protection with flashing lights, audible warning devices and booms is provided at Marsden Road 555.526km. The trackside approach warning sign at 554.078km in the Down direction is a blue surround predictor type and at 556.654km there is a conventional crossing approach warning sign in the Up direction.

In the event of interlocking failures, the level crossing lights, and audible warning devices will become activated and the booms will descend.

After a time period of 4 minutes, the level crossing will be de-activated and the booms will rise to allow road and pedestrian traffic to proceed and will return to normal operation.

Under such circumstances, Rail Traffic Crews will be required to activate the level crossing warning equipment from the Shunters Push Buttons before proceeding across the level crossing.

Manual Operation Switch, Test Switch, and Emergency Switch boxes located on the side wall of the new Marsden Road Level Crossing hut.


Caragabal
546.210 km
Sandy Creek Rd
549.143 km
550.287 km
Woodgates Rd
551.143 km
SHUNT LIMIT
YARD LIMIT
551.643 km
553.301 km
Off Woodgates Rd
A
553.313 km
553.444 km
51
A
AL
AM
AL
AM
553.513 km
554.865 km
FRAME C
1C
2C
LOOP LINE
MAIN LINE
SIDING
Y
X
555.371 km
555.378 km
2B
555.420 km
FRAME B
1B
X
555.440 km
52
555.526 km
Marsden Rd
B
B
555.739 km
557.248 km
YARD LIMIT
SHUNT LIMIT
557.748 km
Back Creek
559.748 km
ARTC
TITLE
NIB-T0042
Wirrinya
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.27 Caragabal (CGB)

General Arrangements

Caragabal is a siding in train order territory.

There is a derail fitted at this location for roll out protection. This derail is operated off Lever 2 on Frame B.

A ‘Derail’ sign is installed adjacent to the derail facing for Up direction traffic.

A Duplex Lock is installed at Frame B. This Duplex lock houses a Fortress Key for Frame B.

A Duplex Lock is located at Frame C, labelled ‘Duplex Lock CE’. This Duplex Lock houses a Fortress Key for Frame C and Frame E.

Ground Frames

Frame B

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

Frame C

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

Frame E

Frame E is located on the Up side of the main line adjacent to the crossover and provides access to the Wheat siding.

Mid-Western Highway Level Crossing

Type F flashing lights and bells are provided at Mid-Western Highway level crossing at 535.187km.

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

It is also manually controlled by an operator pushbutton unit for trains departing the Loop line or shunting the Wheat siding at the Bribbaree end.

Operator's pushbutton unit for the level crossing

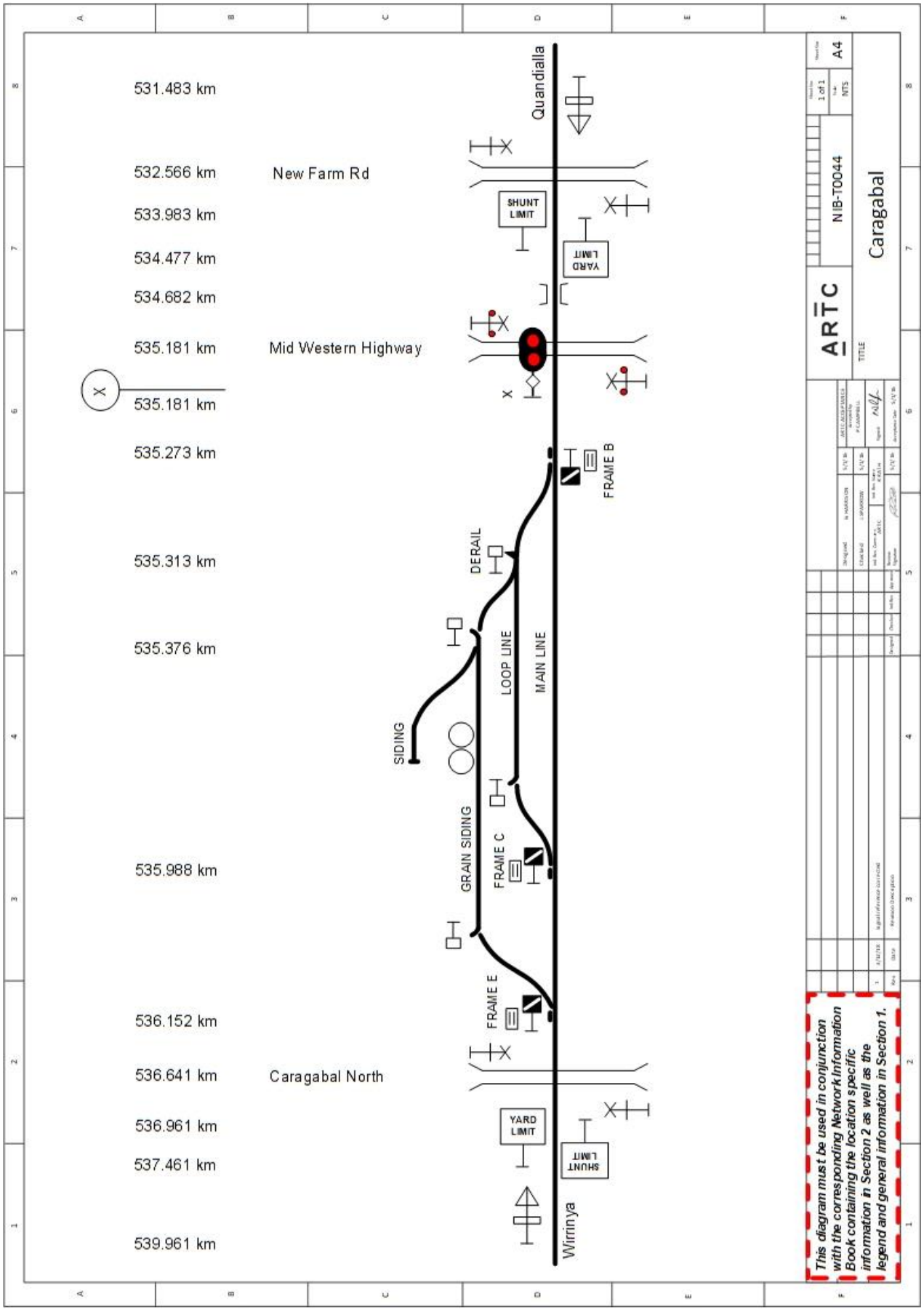
An operator's pushbutton unit is provided in a box inscribed "Shunter's switch", which is attached to a post on each side of the level crossing located next to frame B.

When a train is to enter or depart the Loop line at the Bribbaree end, or when a shunting movement from the Wheat siding is required to obstruct the level crossing, the Qualified Worker must unlock the operator's pushbutton unit and depress the "Start" pushbutton for one second to cause the warning equipment to operate, before handsignalling the train over the crossing.

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

If the movement does not proceed, the warning indications must be cancelled by pressing the "Cancel" pushbutton in either operator's pushbutton unit for one second.

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


531.483 km
Quandialla
532.566 km
New Farm Rd
533.983 km
SHUNT LIMIT
534.477 km
YARD LIMIT
534.682 km
535.181 km
Mid Western Highway
535.181 km
535.273 km
FRAME B
535.313 km
DERAIL
535.376 km
LOOP LINE
MAIN LINE
SIDING
GRAIN SIDING
FRAME C
535.988 km
FRAME E
536.152 km
536.641 km
Caragabal North
536.961 km
YARD LIMIT
537.461 km
SHUNT LIMIT
Wirrinya
539.961 km
NIB-T0044
Caragabal
A4
NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.28 Quandialla (QDL)

General Arrangements

Quandialla is a crossing location in train order territory and is provided with an 1855 metre crossing loop.

The points at each end of the crossing loop are power operated. A points (Stockinbingal end) are located at 512.655km. B points (Parkes end) are located at 514.690km.

Main line indicator (MLI) “A” is located near the points on the Down side of the line at the Stockinbingal end of the yard. Main line indicator “B” is located near the points on the Up side of the line at the Parkes end of the yard. Main line indicator “X” is located on the Parkes side of Wyalong Rd. Main line indicator “Y” is located on the Stockinbingal side of Wyalong Rd.

Point Indicators AM and AL are located within the loop at the Stockinbingal end of the yard while Point Indicators BM and BL are located within the loop at the Parkes end of the yard.

All MLIs and Point Indicators have a push button panel located closely to operate the MLI or Point Indicators for different movements.

Y MLI has two push button panels, one at Frame D, the other close to the Y MLI. The push button panels are secured by an SL lock.

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).

AM and AL (Point Indicators) push button panels contain two push buttons (Indicator Clear and Indicator cancel)

BM and BL (Point Indicators) push button panels contain three push buttons (Indicator Clear main, Indicator Clear shunt & Indicator cancel)

X, MLI push button panel contains two push buttons (Indicator Clear and Indicator cancel)

Y, MLI push button panel contains three push buttons (Indicator Clear main, Indicator Clear shunt & Indicator cancel).

An LED labelled “Points Free” is provided in A, B, AM, AL, BM, and BL pushbutton panels to indicate that the points are free to operate.

The normal indications of A, B, X and Y MLIs are pulsating white. Simultaneously AM and BM point indicators will display a white arrow. allowing trains to proceed on the main line provided all signalling conditions are met.

The points are provided with a self-normalising feature. When set in the reverse position after a train has occupied and then is clear of the point track circuit, the points will return to normal position, after a time delay of 30 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 hut 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 Quandialla at permitted line speed on the main line.

Entry into the Loop Line

For movements into the loop line, the train must be brought to a stand short of A or B MLI. Insert operator’s key then 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 operator must ensure that the “Points Free” indicator is illuminated and then press the “Loop Clear” button. Once the points have completed their movement, the point’s free indication will be extinguished and the operator must wait for the route turnout indicator on the MLI to 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 angled white lights being extinguished. The points will self-restore to normal once they become free. After the points have normalised, pressing the MLI “Main Clear” button will clear to pulsating white.

Exit from the Loop Line

Stockinbingal End

To exit the loop line, insert operator’s key then press the “Indicator Cancel” button provided in the push button panel near the AL point indicator. This will result in the point indicator showing red and after a 2 minute time delay, will release the points. The “points free” indicator will flash.

Press the “Indicator Clear” button. Once the points have moved and are detected, the point indicator will then display a white arrow indicating the points are set and locked for the route.

Parkes End

To exit the loop line, insert operator’s key then press the “Indicator Cancel” button provided in the push button panel near the BL point indicator. This will result in the point indicator showing red and after a 2 minute time delay, will release the points. The “points free” indicator will flash.

Now press the “Indicator Clear” button. Once the points have moved and are detected, the point indicator will then display a white arrow indicating the points are set and locked for the route.

Main and Shunt Movements

At the Parkes end of the yard, BM and BL point indicators push button panels allow the operator to proceed to Y MLI, with Y MLI at stop preventing Wyalong Rd level crossing operating unnecessarily during shunting movements. To exit the loop press the “Indicator Cancel” button provided in the push button panel near the point indicator. This will result in the point indicator showing red and after a 2 minute time delay, will release the points. The “points free” indicator will flash. Now press the “Indicator clear shunt” button. The BL point indicator will then display a white arrow indicating the points are set and locked for the route while keeping Y MLI at stop.

Ground Frames

Frame D

Frame D is located on the Down side of the main line adjacent to the crossovers and provides access to the Grain siding.

Frame C

Frame C is located on the Down side of the loop line adjacent to the crossover and provides access to the Grain siding.

Wyalong Road Level Crossing

Type F Flashing Lights and bells are provided at Wyalong Rd Level Crossing at 515.377km.

The level crossing is protected by main line indicator “Y” for trains travelling in the Down direction and main line indicator “X” in the Up direction. These Main Line Indicators are normally clear and indicate that the level crossing warning equipment will operate on the approach of a train.

Two shunter’s pushbuttons inscribed “Level Crossing Start” and “Level Crossing Cancel” are provided on the side of the Level Crossing equipment hut.

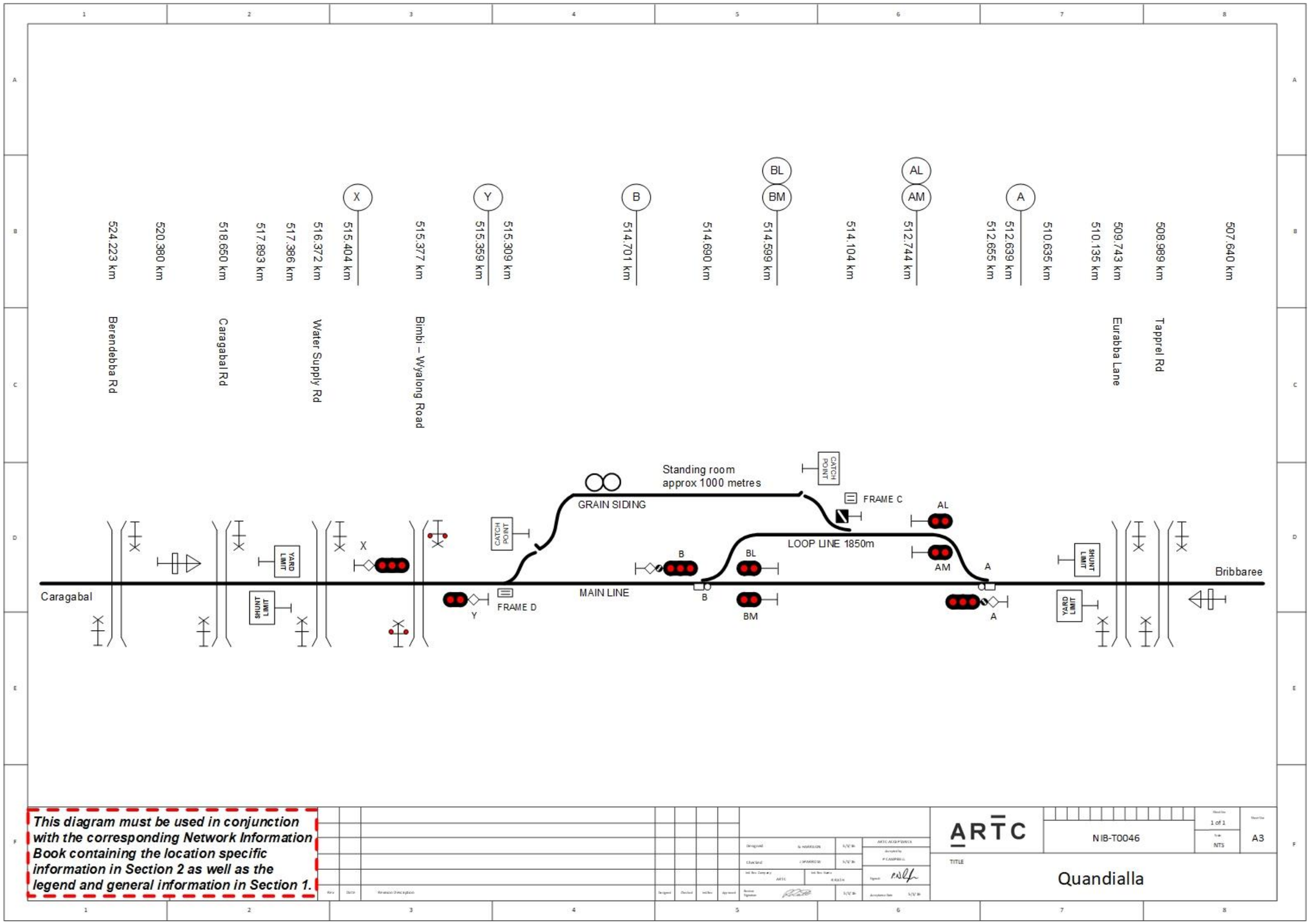
The warning indications to road users will be cancelled automatically when the rear of the train has cleared the level crossing.

The shunter’s pushbuttons must be kept closed and secured by an SL lock when not in use.

Locations of Train Order Signs

The following table shows the location of the train order working signs at Quandialla.

Sign ID	Sign Location
Down Location Sign	507.640km
Down Yard Limit Sign	510.135km
Up Shunt Limit Sign	510.635km
Down Shunt Limit Sign	517.386km
Up Yard Limit Sign	517.893km
Up Location Sign	520.380km


507.640 km
508.989 km
Tapprel Rd
509.743 km
Eurabba Lane
510.135 km
510.635 km
512.639 km
512.655 km
A
512.744 km
AL
AM
514.104 km
514.599 km
BL
BM
514.690 km
514.701 km
B
515.309 km
515.359 km
Y
515.377 km
Bimbi – Wyalong Road
515.404 km
X
516.372 km
Water Supply Rd
517.386 km
517.893 km
518.650 km
Caragabal Rd
520.380 km
524.223 km
Berendebba Rd
Standing room
approx 1000 metres
GRAIN SIDING
CATCH POINT
FRAME C
LOOP LINE 1850m
MAIN LINE
FRAME D
SHUNT LIMIT
YARD LIMIT
Caragabal
Bribbaree
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.
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Quandialla

2.29 Bribbaree (BRB)

General Arrangements

Bribbaree is a siding in Train Order Territory. The Silo and Wheat Sidings are clear of Train Order Territory.

Operation of Points and Signals

Main Line Indicator “X” is provided on the down side of the line at 500.287 Km facing Up Trains. The indicator is normally at stop and is cleared by push buttons located at Frame B. Depressing the “X MLI Clear” push button will commence the crossing to operate.

Once the crossing has operated and the booms are horizontal “X” MLI will display a Pulsating White indication. Operators of Trains departing Bribbaree in the Up Direction must operate the “X” MLI push buttons prior to departing.

For trains required to shunt the sidings at Bribbaree, shunter’s push buttons are provided at Frame B to operate the level crossing.

Ground Frames

Frame B

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

Frame B is release by the key in the duplex lock B.

Frame D

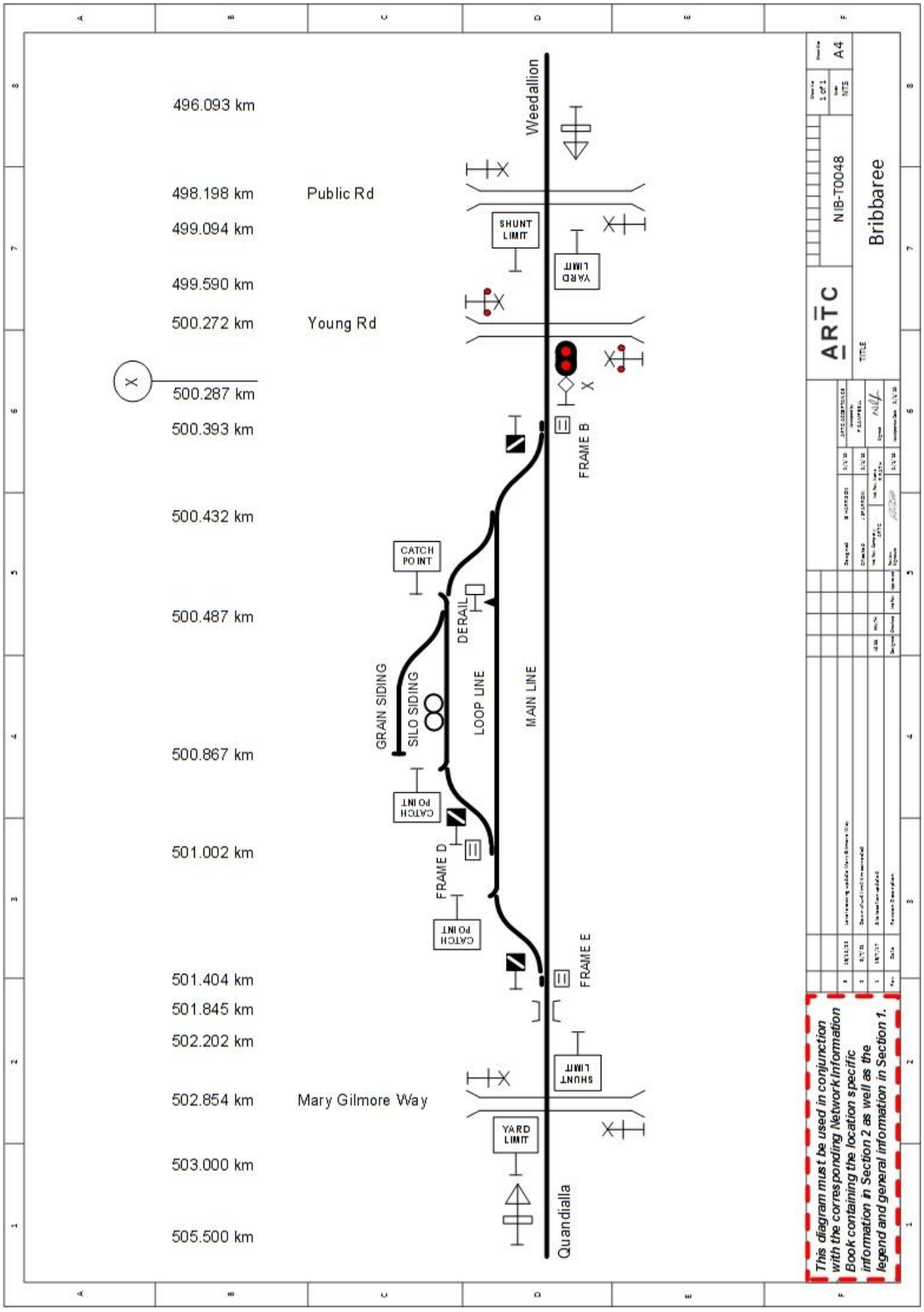
Frame D is located on the Up side of the Loop line adjacent to the crossover and provides access to the Silo siding.

Frame D is released by operator’s key.

Frame E

Frame E is located on the Down side of the main line adjacent to the crossover and provides access to the Loop line.

Frame E is released by operator’s key.


496.093 km
Weedallion
498.198 km
Public Rd
499.094 km
SHUNT LIMIT
YARD LIMIT
499.590 km
500.272 km
Young Rd
500.287 km
500.393 km
FRAME B
500.432 km
CATCH POINT
500.487 km
DERAIL
GRAIN SIDING
SILO SIDING
LOOP LINE
MAIN LINE
500.867 km
CATCH POINT
501.002 km
FRAME D
CATCH POINT
501.404 km
FRAME E
501.845 km
502.202 km
SHUNT LIMIT
502.854 km
Mary Gilmore Way
YARD LIMIT
503.000 km
505.500 km
Quandialla
A4
NIB-T0048
Bribbaree
TITLE
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.30 Weedallion (WED)

General Arrangements

Weedallion is a siding in Train Order Territory. The Grain Siding is clear of Train Order Territory.

The Grain Siding is approximately 289 metres with a dead end road of approximately 135 metres on the Down end.

Ground Frames

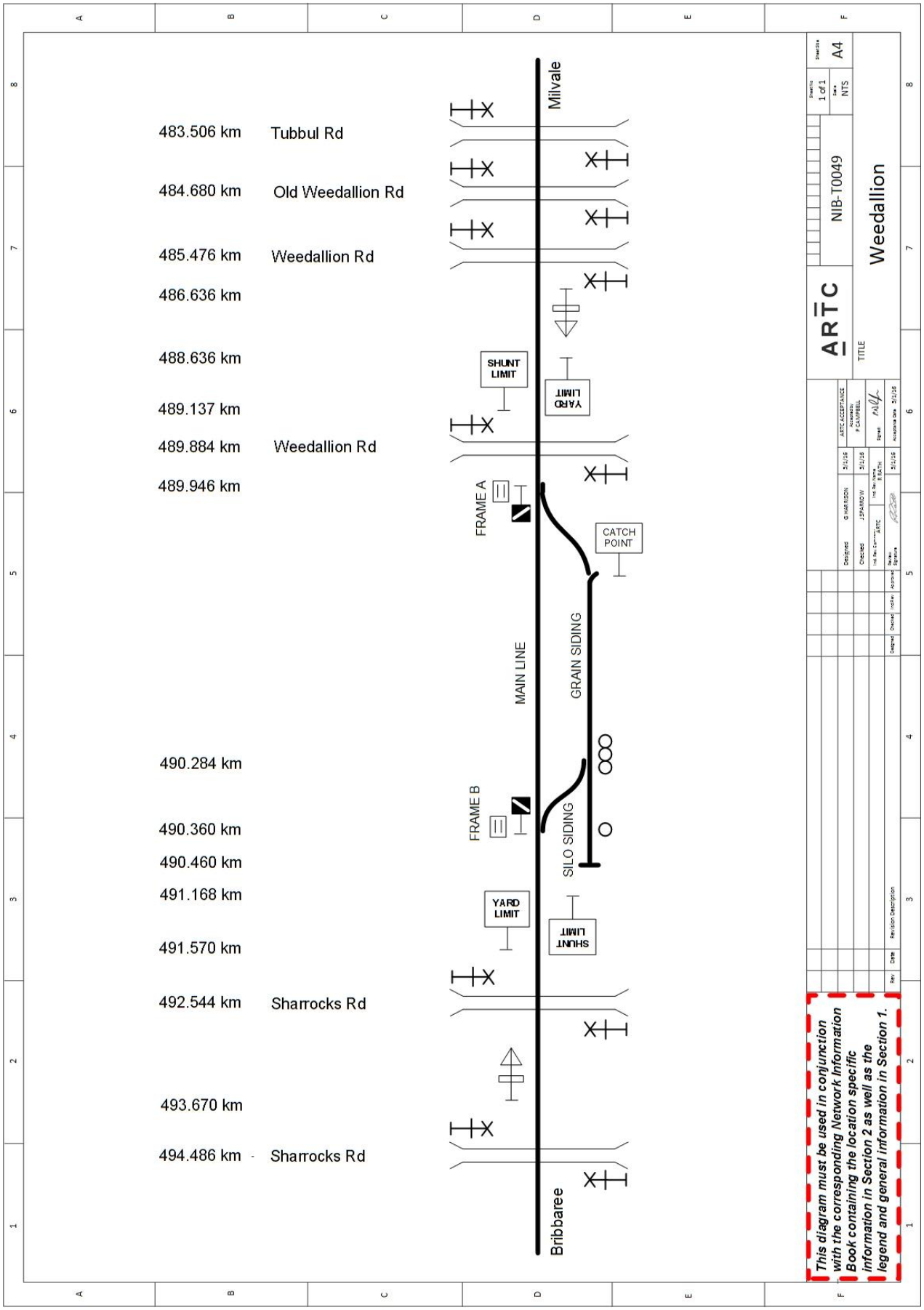
Frame A

Frame A is located on the Down side of the main line. It operates the points leading from the main line to the Wheat siding and the catchpoints in the siding at the Stockinbingal end.

Frame B

Frame B is located on the Down side of the main line. It operates the points leading from the main line to the Wheat siding and the catchpoints in the siding at the Bribbaree end.

Frame A and B are released by operator's keys.


483.506 km
Tubbul Rd
484.680 km
Old Weedallion Rd
485.476 km
Weedallion Rd
486.636 km
488.636 km
489.137 km
489.884 km
Weedallion Rd
489.946 km
490.284 km
490.360 km
490.460 km
491.168 km
491.570 km
492.544 km
Sharrocks Rd
493.670 km
494.486 km
Sharrocks Rd
Milvale
Bribbaree
SHUNT LIMIT
YARD LIMIT
FRAME A
FRAME B
CATCH POINT
MAIN LINE
GRAIN SIDING
SILO SIDING
YARD LIMIT
SHUNT LIMIT
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Weedallion
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NTS
This diagram must be used in conjunction with the corresponding Network Information Book containing the location specific information in Section 2 as well as the legend and general information in Section 1.

2.31 Milvale (MLV)

General Arrangements

Milvale is a crossing location in Train Order Working territory and is provided with an 1850 metre crossing loop.

The points at each end of the crossing loop are power operated. A points (Stockinbingal end) are located at 476.294km. B points (Parkes end) are located at 478.338km.

Main line indicator (MLI) “A” is located near the points on the Down side of the line at the Stockinbingal end of the yard. Main line indicator “B” is located on the Up side of the line at the Parkes end of the yard. Main line indicator “Y” is located on the down side on the Stockinbingal side of Young Rd. Main line indicator “X” is located on the up side on the Parkes side of Young Road.

Trailing Point Indicators (TPI) AM and AL are located within the loop at the Stockinbingal end of the yard while Trailing Point Indicators BM and BL are located within the loop at the Parkes end of the yard.

All MLIs and TPIs have a push button panel located closely to operate the MLI for different movements.

Push button panels are secured by an SL lock.

Silo Siding

A silo siding is provided at Milvale. This siding is accessed from the Main Line via mechanical Frame C (Stockinbingal end) or Frame D (Parkes end). These two lever frames consist of an FPL lever and a point lever. The FPL lever is released with an annett key, which is released from a duplex lock.

Operation of Points and Main Line Indicators

A and B push button panels contain three push buttons (Main Clear, Loop Clear and Indicator Cancel).

X, Y push button panels contain two push buttons (Indicator Clear and Indicator Cancel).

BM and BL push button panels contain two push buttons (Indicator Clear and Indicator Cancel).

AM push button panel contains three push buttons (Indicator Clear Main (AM & X), Indicator Clear Shunt (AM Only), Indicator Cancel).

AL push button panel contains three push buttons (Indicator Clear Main (AL & X), Indicator Clear Shunt (AL Only), Indicator Cancel).

To enable operation of the push buttons the operator’s key must be inserted and turned clockwise in the slot provided.

A LED labelled “Points Free” is provided in A, AM, AL, BM, BL and B pushbutton panels to indicate that the points are free to operate.

The normal indications of A, B, X and Y MLIs are pulsating white, with AM and BM displaying a white arrow, allowing trains to proceed into Milvale on the main line provided all conditions are met.

The points are provided with a self-normalising feature. When set in the reverse position after a train has occupied and then is clear of the point track circuit, the points will return to normal position, after a time delay of 30 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 Milvale at permitted line speed on the main line.

Entry into the loop line

For movements into the loop line, 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 qualified 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 line

To exit the loop line, first press the “Indicator Cancel” button provided in the push button panel near the TPI. This will result in replacement of the TPI 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 AL or BL pushbutton panel, once the points have moved and are detected, the TPI 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 TPI. 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.

Shunting

Movements requiring access from the Main Line AM / AL TPI’s via mechanical Frame C (Stockinbingal End) may use either the “Indicator Clear Main” or “Indicator Clear Shunt” buttons as appropriate for the length of the movement. Pushing the respective buttons has the following outcome.

Indicator Clear Main

- Both the TPI and “X” MLI will clear for the movement.

Indicator Clear Shunt

- Only the TPI will clear, “X” MLI will remain at “STOP”.

Young Rd Level Crossing

Type F Flashing Lights and bells are provided at Young Rd Level Crossing at 475.932km.

The level crossing is protected by main line indicator “Y” for trains travelling in the Down direction and main line indicator “X” in the Up direction. These Main Line Indicators are normally clear and indicate that the level crossing warning equipment will operate on the approach of a train.

Shunter’s pushbuttons inscribed “Level Crossing Start” and “Level Crossing Cancel” are provided on the side of the level crossing equipment hut and at Frame C. The health of the level crossing will be indicated by “X” and “Y” MLIs.

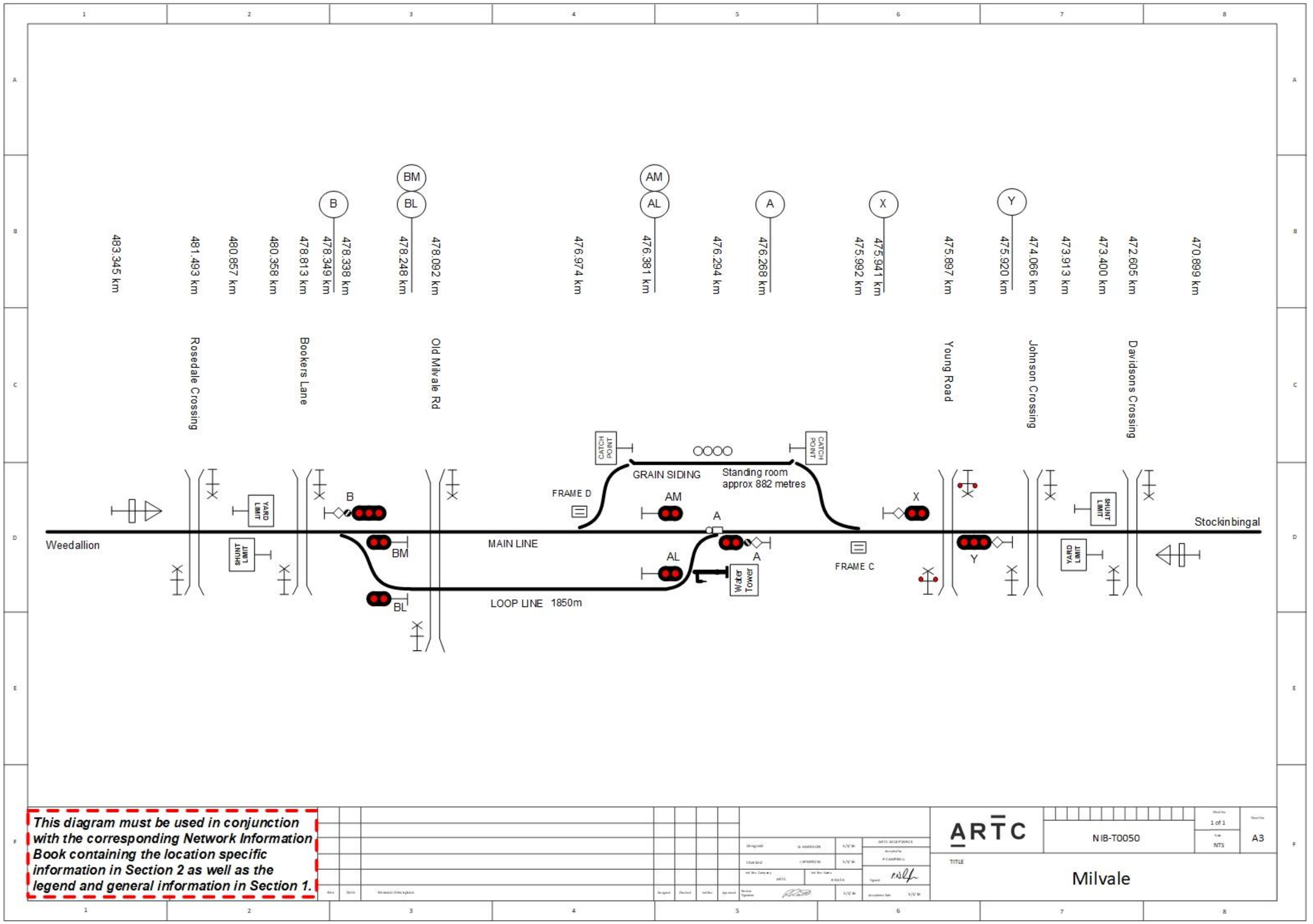
The warning indications to road users will be cancelled automatically when the rear of the train has cleared the level crossing.

The shunter’s pushbuttons must be kept closed and secured by an SL lock when not in use.

Locations of Train Order Signs

The following table shows the location of the train order working signs at Milvale.

Sign ID	Sign Location
Down Location Sign	470.899km
Down Yard Limit Sign	473.400km
Up Shunt Limit Sign	473.913km
Down Shunt Limit Sign	480.358km
Up Yard Limit Sign	480.857km
Up Location Sign	483.345km



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.

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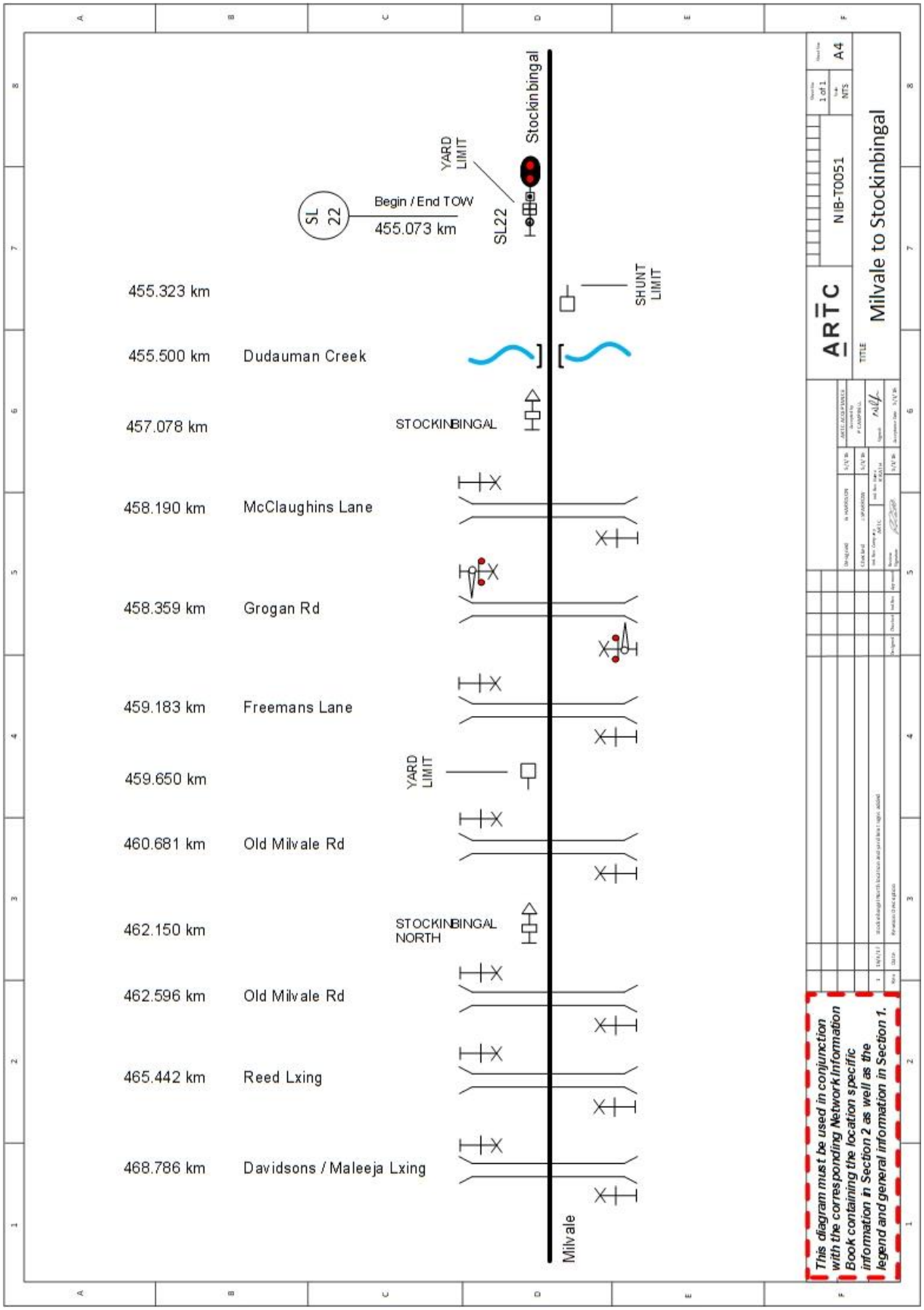
Milvale


Stockinbingal
YARD LIMIT
SL 22
Begin / End TOW
455.073 km
SL22
SHUNT LIMIT
455.323 km
455.500 km
Dudauman Creek
457.078 km
STOCKINBINGAL
458.190 km
McClaughins Lane
458.359 km
Grogan Rd
459.183 km
Freemans Lane
459.650 km
YARD LIMIT
460.681 km
Old Milvale Rd
462.150 km
STOCKINBINGAL NORTH
462.596 km
Old Milvale Rd
465.442 km
Reed Lxing
468.786 km
Davidsons / Maleeja Lxing
Milvale
ARTC
NIB-T0051
TITLE
Milvale to Stockinbingal
A4
NTS
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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.