

PAKENHAM TO BAIRNSDALE

BROAD GAUGE

1. CLASS OF LOCOMOTIVE AND PERMITTED SPEEDS (KM/H)

		CLASS OF LOCOMOTIVE						Sprinter/ Vlocity
		G, XR, BL	A, B, GM, N, S, X	T	H, P	Y		
PAKENHAM KP 64.600 down side of MT ARARAT ROAD and NAR NAR GOON – South Line	Freight	80	80	80	80	65	..	
	Pass	80	115	100	100	..	130	
PAKENHAM KP 64.600 down side of MT ARARAT ROAD and NAR NAR GOON – North Line	Freight	80	80	80	80	65	..	
	Pass	80	115	100	100	..	115	
NAR NAR GOON to WARRAGUL – North, South and Single Lines	Freight	80	80	80	80	65	..	
	Pass	80	115	115	115	..	130	
WARRAGUL and 130.960 km Post (Down side of MOE)	Freight	80	80	80	80	65	..	
	Pass	80	115	100	100	..	130	
Except over LITTLE MOE RIVER BRIDGE at 105.00 km between WARRAGUL and YARRAGON South Track Only	Up Freight	25	80	80	80	65	..	
	Up Pass	25	115	100	100	..	130	
130.960 km Post (Down side of MOE) and HERNE'S OAK	Freight	80	80	80	80	65	..	
	Pass	80	100	100	100	..	115	
HERNE'S OAK and TRARALGON	Freight	80	80	80	80	65	..	
	Pass	80	115	100	100	..	130	
Except through the Loop Tracks at MORWELL	All Trains	40	40	40	40	40	40	
	Except through TRARALGON all trains travelling on the normal diverging movement via the Platform Road.	All Trains	40	40	40	40	40	
TRARALGON and SALE	Freight	#	80	80	80	65	..	
	Pass		100	100	100	..	100	
SALE and PRINCES HIGHWAY BAIRNSDALE – KP 270.944	Pass		100	100	100	..	100	
PRINCES HIGHWAY BAIRNSDALE – KP 270.944 to BAIRNSDALE STATION	Pass		80	80	80	..	100	
Except for all trains travelling across the AVON RIVER STRATFORD	Pass		10	10	10	10	10	

Note # G Class Locomotives are NOT permitted to operate beyond Traralgon.

Trains travelling across the **AVON RIVER BRIDGE STRATFORD** are not to operate in **multi-unit consist except Vlocity Rail Cars which are authorised to travel in 2 x 3 VL configuration.**

Refer Section 2 , Special Speed Restrictions, points 3 and 4 regarding authorised speeds for consists with permissible overloads.

1A. VLOCITY RAIL CARS – AUTHORISED 160KM/H PERMITTED SPEEDS

REGIONAL FAST RAIL CORRIDOR – PAKENHAM TO TRARALGON

LOCATION	VLOCITY
SOUTH Line – Track Boundary KP 64.600 down side of MT ARARAT ROAD to KP 65.738 up side of NAR NAR GOON Platform	150
SOUTH Line – KP 65.738 up side of NAR NAR GOON Platform through BUNYIP Single Line Section through LONGWARRY onto SOUTH Line to KP 85.500 down side of LONGWARRY	160
SOUTH Line – From KP 85.500 down side of LONGWARRY to KP 98.400 UP side of COLMAN STREET WARRAGUL	As per table 1 above for Sprinter
SOUTH Line - KP 98.400 UP side of COLMAN STREET WARRAGUL – Through WARRAGUL STATION to KP 102.100 down side of WARRAGUL	160
SOUTH Line KP 102.100 down side of WARRAGUL to KP 103.200	As per table 1 above for Sprinter
SOUTH Line KP 103.200 down side of WARRAGUL onto Single Line section (MOE – HEARN'S OAK) KP 130.920 (MOE STATION)	160
Single Line (MOE – HERNE'S OAK) KP 130.920 (MOE STATION) to UP side of HERNE'S OAK LOOP KP 136.200	As per table 1 above for Sprinter
UP side of HERNE'S OAK LOOP KP 136.200 through HEARN'S OAK LOOP main Line to KP 139.061 (UP side of MORWELL)	160
Single Line (HEARN'S OAK – MORWELL Single Line Section) KP 139.061 (UP side of MORWELL) to KP 141.354 (UP side of MORWELL)	As per table 1 above for Sprinter
KP 141.354 (UP side of MORWELL) through MORWELL Loop main line and MORWELL Platform onto Single Line (MORWELL LOOP to TRARALGON Section) KP 145.339 (Down Side of MORWELL PLATFORM)	160
KP 145.339 (Down Side of MORWELL PLATFORM) to KP 148.200 (UP Side of TRAMWAY ROAD)	As per table 1 above for Sprinter
KP 148.200 (UP Side of TRAMWAY ROAD) to KP 157.300 (UP Side of TRARALGON)	160
KP 157.300 (UP Side of TRARALGON) to TRARALGON STATION	As per table 1 above for Sprinter

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2. SPECIAL SPEED RESTRICTIONS

- Speed Restrictions indicated in the above tables for G class locomotives over certain bridges/subways apply only until after the locomotive clears the bridge/subway concerned.
- The speed of G class locomotives when passing over Main Line Points on the Straight track must not exceed 65km/h at MOE, HERNE'S OAK, MORWELL and MARYVALE.
- Trains running on the South line and Single line sections from Maryvale Exchange Siding via Pakenham using approved wagons, shall not exceed 88 tonnes gross or an axle load of 22 tonnes and are restricted to a maximum of 80km/h or 30km/h when running through the Loop track at Herne's Oak Loop and Morwell Loop.
- Trains running over the North Line only from Maryvale Exchange Siding via Pakenham using approved wagons, shall not exceed 84 tonnes gross or an axle load of 21 tonnes and are restricted to a maximum speed of 60km/h or 30km/h when running through the Loop track at Herne's Oak Loop and Morwell Loop.
- The speed of all trains when passing over Facing Points worked from an interlocking frame or otherwise securely fastened, or over Trailing Points shall be as shown hereunder:

LOCATION	MAXIMUM SPEED KM/H	
	When running to or from lines diverging from the straight track	When running on the straight track
Over facing points held by hand	15	15
Between SOUTHERN CROSS and BAIRNSDALE	40 (or higher as specified by speed indicator on signal mast)	Line Speed for Train Type
At TRARALGON (speed on the straight refers to the normal diverging movement via the Platform Road)	15	40

- All self propelled Rolling Stock (Locomotives etc.) including Track Machines and Track Maintenance vehicles which are not fitted with TPWS must be restricted to a Maximum Speed of 80 (eighty) KPH between Pakenham to Traralgon.
- Traralgon** - A Notice Board is provided at **159.149km** near to the existing limit of Shunt sign applicable to Down Train movements with the wording as shown requiring Down Trains not to exceed 70KPH to the Liddiard Road Level Crossing.

**MAX SPEED TO LIDDIARD ROAD
70 KM/H**
- Rosedale** – A Notice Board is provided at Rosedale approximately 430 meters on the Up side of the Rosedale Station Platform to show the maximum speed for Down Trains approaching the Willung Road Level Crossing.

MAX SPEED TO WILLUNG ROAD 80 KM/H
- Sale – Bairnsdale** – Special sign posted Temporary Speed Restrictions apply to Vlocity Rail Cars only between Sale and Bairnsdale. A “VL” prefix will apply to the normal sign posted Temporary Speed Restriction indicating these only apply for Vlocity Rail Cars.
- Sale** – A Notice Board is provided opposite Signal H to show the maximum speed for Down Trains approaching the Maffra Road Level Crossing. The indicated speed will only apply to that Level Crossing.

**MAX SPEED TO MAFFRA ROAD
90 KM/H**
- Stratford** – A Notice Board is located 13 meters on the UP side of the Princes Highway Rail Overpass at KP 220.444 for advance warning of the Line Speed for the Avon River Bridge is not to exceed 10 km/h.

**AVON RIVER BRIDGE
MAXIMUM SPEED
10 KM/H
600M**
- Stratford** - A Notice Board is provided approximately **207 meters on the Up side of the McAllister Street Level Crossing** to show the maximum speed for Down Trains approaching the McAllister Street Level Crossing. The indicated speed will only apply up to that Level Crossing.

**MAX SPEED TO MCALLISTER STREET
20KM/H**

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- 13. **Stratford** - A Notice Board is provided approximately **350 meters on the Down side of the McAllister Street Level Crossing** to show the maximum speed for Up Trains approaching the McAllister Street Level Crossing. The indicated speed will only apply up to that Level Crossing.
- 14. **Stratford** - A Notice Board is provided approximately **310 meters on the Up side of the Hobson Street Level Crossing** to show the maximum speed for Down Trains approaching the Hobson Street Level Crossing. The indicated speed will only apply up to that Level Crossing.
- 15. **Stratford** - A Notice Board is provided on approximately **310 meters on the Up side of the Princes Highway Level Crossing** to show the maximum speed for Down Trains approaching the Princes Highway Level Crossing. The indicated speed will only apply up to that Level Crossing.
- 16. **Bairnsdale** – A Notice Board is provided at the UP end of No. 3 Road advising that UP Trains Maximum Speed to the Ligar Street PCR (274.172km) is not to exceed 15 km/h
- 17. **Bairnsdale** - A Notice Board is provided on the UP approach to **Princes Highway PCR (270.944km)** to show the maximum speed approaching the Level Crossing and will apply to trains passing the Notice Board at less than 50km/h.
- 18. **Bairnsdale** - Notice Boards are provided on both the UP and the DOWN approach to **Bosworth Road PCR (272.484km)** to show the maximum speed approaching the Level Crossing and will apply to trains passing the Notice Board at less then 50km/h.
- 19. **Bairnsdale** - A Notice Board is provided on the UP approach to **Ligar Street PCR (274.172km)** to show the maximum speed approaching the Level Crossing.

**MAX SPEED TO
MCALLISTER STREET
40KM/H**

**MAX SPEED TO
HOBSON STREET 40KM/H**

**MAX SPEED TO PRINCES
HIGHWAY
40 KM/H**

**TRAINS MAXIMUM SPEED
TO CROSSING 15 KM/H**

**MAX SPEED TO PRINCES
HIGHWAY 50 KM/H**

**MAX SPEED TO
BOSWORTH ROAD 50 KM/H**

**MAX SPEED TO LIGAR
STREET 50 KM/H**

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3. RULING GRADE LOADS (TONNES)

SECTION	CLASSES OF LOCOMOTIVES													
	G, XR, BL	N	GM, S, X	Mod A	Non Mod A solo or multi with A	Non Mod A multi with other class	B	H solo or multi with H, P, T or Y	H multi with other class	T or P solo or multi with H, P, T or Y	T or P multi with other class	Y solo or multi with T, Y, H or P	Y multi with other class	
DOWN														
PAKENHAM	1850	..	..	1440	..	..	..	..	..	..	..	..	..
WARRAGUL	1450	1100	930	1100	910	820	760	560	500	560	500	405	360	
MOE	1510	1200	1000	1170	1100	990	780	600	600	600	540	400	360	
MORWELL	1370	1030	930	1110	860	770	760	540	490	540	490	355	320	
TRARALGON	1980	1410	1260	1500	1250	1130	1150	870	780	870	780	580	520	
SALE		1820	1220	..	1390	1250	970	860	770	860	860	460	460	
BAIRNSDALE		1320	990	1100	1090	980	800	610	610	550	550	405	405	
UP														
Bairnsdale to														
SALE		1460	1120	1450		1070	900	680	610	570	570	405	405	
TRARALGON		1950	1500	..1790	1730	1560	1180	860	770	790	710C	460	460	
MORWELL	1425	1060	910	1100	930	850	760	600	550	600	550	390	350	
MOE	1370	960	800	1000	850	770	700	500	450	500	450	355	320	
MOE (Non-Stop Herne's Oak)	1425	1060	910	1100	930	850	760	600	550	600	550	390	350	
WARRAGUL	3280	2300	1910	2300	1920	1730	1540	1200	1080	1200	1080	815	730	
DROUIN (Via South Line)	..	2260	1900		1900	1710	1530	1190	1070	1190	1070	730	660	
(Via North Line)	1450	1100	900	1100	910	820	760	560	500	560	500	405	360	
PAKENHAM	2910	..	..		..	..	..	..	..	..	..	..	..

♦ Trains operating non-stop through MORWELL and hauled by a G class locomotive may be built up to 1450 tonnes.

4. SAFEWORKING SYSTEMS

Automatic and Track Control is in force on the NORTH SOUTH and SINGLE Lines between PAKENHAM and TRARALGON in accordance with the provisions of Sections 16 and 36 of the Rules and Operating Procedures.

Automatic Block Signalling is in force at TRARALGON

The signalling at PAKENHAM is controlled by Metro Trains.

The signalling at BUNYIP, LONGWARRY, WARRAGUL, MOE, HERNE'S OAK, MORWELL and TRARALGON is controlled using visual display units located at CENTROL.

MORWELL and TRARALGON Single Line Section

Switch Locked points exist at the down end of MORWELL for access to the old Morwell Briquette line and the siding extension of No 2 Road at Morwell.

At MARYVALE switch locked points provide access to the Maryvale exchange, GIFT and MIS sidings.

The signals for through trains at TRARALGON are controlled from CENTROL and Key switch operation for local yard movements

Train Staff and Ticket system worked in accordance with Section 21 of the 1994 Book of Rules and Operating Procedures is in force between TRARALGON – SALE and SALE – BAIRNSDALE.

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5. SPECIAL NOTES

Pakenham – Bunyip; North and South Lines

The lease boundary between Metro Trains and V/Line is situated at the Signal Gantry located at KP 64.600

Signals PKM 770 and PKM 782 are on this Gantry.

Sale - Bairnsdale

- Freight trains are not permitted to operate between **Sale and Bairnsdale** without prior permission from General Manager Network Services Department
- Sprinter Units are not permitted to operate between Sale and Bairnsdale.

6. DISTANCES FROM MELBOURNE AND CLEAR LENGTH OF CROSSING ROADS

LOCATION	MARKED DISTANCE FROM MELBOURNE (KM)	CLEAR LENGTH OF CROSSING ROADS (LENGTH IN METRES)	
		NO. 1	NO. 2
PAKENHAM	58.193		
PAKENHAM (LEASE BOUNDARY)	64.600		
NAR-NAR-GOON	65.805	..	..
TYNONG	70.803	..	..
GARFIELD	74.935	..	..
BUNYIP	79.088	..	..
LONGWARRY	83.492	..	..
DROUIN	92.224	..	..
WARRAGUL	99.766		No. 2 Siding Track 685m
YARRAGON	112.216	..	..
TRAFALGAR	120.266	..	..
MOE	130.225	..	..
HERNE'S OAK	137.485	701	701
MORWELL LOOP		1553	1553
MORWELL STATION	144.372		
HAZELWOOD (G.I.F.T.) SIDING	147.700	..	..
MARYVALE (A.P.M SIDING)	147.600	..	..
MORWELL SHIRE INDUSTRIAL SIDING	148.647	..	..
TRARALGON	158.072	330	330
ROSEDALE	180.365	..	..
SALE	206.021	600	600
STRATFORD	222.108		
BOSWORTH ROAD SIDING	272.800	Up End Bosworth Rd LX - 746 Down End Bosworth Rd LX - 365	
BAIRNSDALE	274.848	311	311

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7. TRACK CLASS

Track is maintained to the following class standards:

SECTION			CLASS
PAKENHAM – MOE	North Line	60.835 km – 129.550 km	CLASS 2
PAKENHAM – TRARALGON	South Line	60.835 km – 85.516 km	CLASS 1
	South Line	85.516 km – 96.837 km	CLASS 2
	South Line	96.837 km – 97.477 km	CLASS 2M
	South Line	97.477 km – 98.039 km	CLASS 2
	South Line	98.039 km – 98.394 km	CLASS 2M
	South Line	98.394 km – 102.184 km	CLASS 1
	South Line	102.184 km – 102.262 km	CLASS 2
	South Line	102.262 km – 102.852 km	CLASS 2M
	South Line	102.852 km – 103.191 km	CLASS 2
	South Line	103.191 km – 130.940 km	CLASS 1
	South Line	130.940 km – 136.175 km	CLASS 2
	South Line	136.175 km – 139.040 km	CLASS 1
	South Line	139.040 km – 140.663 km	CLASS 2
	South Line	140.663 km – 141.333 km	CLASS 2M
	South Line	141.333 km – 145.561 km	CLASS 1
	South Line	145.561 km – 146.359 km	CLASS 2
South Line	146.359 km – 147.038 km	CLASS 2M	
South Line	147.038 km – 147.822 km	CLASS 2	
South Line	147.822 km – 156.898 km	CLASS 1	
South Line	156.898 km – 158.070 km	CLASS 2	
TRARALGON – BAIRNSDALE		158.070 km – 274.850 km	CLASS 3

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8. PROTECTED LEVEL CROSSINGS

NAME AND KMS OF NEAREST STATION	LEVEL CROSSING	DISTANCE (KM)	TYPE	LOCATION NUMBER	VICROADS ID NO.
PAKENHAM – 58.193	Mt Ararat Road	63.313	BB	D0633	
NAR NAR GOON – 65.805	Koo-wee-rup Road	65.674	BB, PG	D0656	
	Nar Nar Good Pedestrian Access over North Line to Station	65.800	PG	D0658	
TYNONG – 70.803	Tynong Road	70.375	BB, PG	D0703	
BUNYIP – 79.088	McIntyre Road	76.630	BB	D0766	
	Hope Street (Iona Road)	78.635	BB, PG	D0786	
	Bunyip Down End Station Access	79.200	PG	D0792	
LONGWARRY – 99.766	Yannathan Road	83.559	BB, PG	D0835	
DROUIN – 92.224	Gardiner's Road	89.828	BB	D0898	
	Lardner's Track (North Line Only)	95.625	BB	D0956	
WARRAGUL – 99.766	Colman Street	98.547	BB, PG	D0985	
	Occupation Crossing	108.664	BB	D1086	
YARRAGON – 112.216	Yarragon Station Platforms (Down end)	112.332	PG		
	Shady Creek Road	112.605	BB, PG	D1126	
	Nine Mile Road	116.152	BB	D1161	
TRAFALGAR – 120.266	Ashby Street	119.945	BB, PG	D1199	
	Trafalgar Station Platforms (Up end)	120.185	PG	D1201	
	Waterloo Road	121.288	BB	D1213	
	Telephone Road	123.227	BB	D1235	
MOE – 130.225	Lloyd Street	129.445	BB, PG	D1294	
	Moe Down End Station Access	130.234	PG	D1302	
MORWELL – 144.372	Tramway Road	148.244	BB	D1482	
	Occupation Crossing*	149.941	FL	D1492	
TRARALGON – 158.072	Banks Street*	155.494	BB	D1554	
	Liddiard Road	159.310	BB	DS1593	
	McNairn Road	160.221	BB	DS1602	
	Minniedale Road	163.016	BB	DS1630	6600
	Barrs Lane	168.960	FL	DS1689	
ROSEDALE – 180.365	Flynns Creek Road	172.235	BB	DS1722	
	Wrights Lane	175.254	BB	DS1752	
	Rosedale - Flynns Creek Road	178.406	BB	DS1784	
	Friends Road	179.202	FL	DS1792	
	Willung Road	180.523	BB	DS1805	
	Longford Road	184.298	BB	DS1842	
	Settlement Road	191.638	FL	DS1916	
SALE – 206.021	Velore Road	194.105	BB	DS1941	
	Sale-Cowwarr Road	197.454	BB	DS1974	
	Aerodrome Road	199.177	FL	DS1991	
	Sale-Heyfield Road	200.144	BB	DS2001	19022
	Hunt Place	203.891	BB	DS2038	
	Raglan Street	206.878	BB PG EGL	D2068	
	Maffra Road	207.895	BB	D2078	19025
	Myrtlebank Road	210.315	BB	D2103	
	Yuill / Baxter Road	211.348	FL	D2113	
	Montgomery Road	214.294	BB	D2142	
STRATFORD – 222.108	Falls Lane	217.542	BB	D2175	
	McAllister Street	221.839	FL	D2218	
	Hobson Street	222.234	FL	D2222	
	Princes Highway	222.535	BB	D2225	
	Reeves Road	228.341	BB	D2283	
	Swallow Lagoon Road	230.924	BB	D2309	
	Munro/Stockdale Road	233.012	FL	D2330	
Dargo-Fernbank Road	246.004	FL	D2460		

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NAME AND KMS OF NEAREST STATION	LEVEL CROSSING	DISTANCE (KM)	TYPE	LOCATION NUMBER	VICROADS ID NO.
BAIRNSDALE – 274.484	Fernbank – Lindenow South Road ^e	251.270	BB	D2512	
	Buntines Road ^Ω	254.131	BB	D2541	
	Lindenow Road ^e	257.301	FL	D2573	
	Scotts Road ^Ω	260.586	BB	D2605	
	Hillside Road ^e	263.055	FL	D2630	
	Buchanans Lane ^e	265.874	FL	D2658	
	Marriage Lane ^Ω	267.726	BB	D2677	
	Power Station Road ^Ω	269.163	BB	D2691	
	Princes Highway ^{e♣}	270.944	BB	D2709	7269
	Bosworth Road ^e	272.484	BB	D2724	
	Ligar Street ^e	274.172	FL	D2741	

BB – Boom Barriers **CC** – Crib Crossing **FL** – Flashing Lights **PG** – Pedestrian Gates
EGL – Electric Gate Latches

Note * Indicates those level crossings where an increase in speed may be permitted if the train is travelling at or above 50km/h upon passing the predictor indicator board.

At these level crossings indicated above operated with Level Crossing Predictors, the Predictor boards will be placed in accordance with Rule 9 (Section 36) of the Book of Rules and Operating Procedures.

Note ♣ Level crossing fitted with VicRoads Active Advance Warning Signs. Warning sign faults are to be reported to the VicRoads Fault Centre on 131170.

Note e Indicates those level crossings are operated through Axle Counter Equipment. Reset of this equipment will be in accordance with Operating Procedure 34-130F.

Note □ Level crossing coordinated with Traffic Lights. Faults are to be reported to the VicRoads Fault Centre on 131170.

Note Ω Indicates those level crossings are operated through Axle Counter Equipment. Reset of this equipment will be in accordance with, Procedure 34 - 133 Axle Counter Level Crossing Reset Procedure from Section 34 of Book of Rules and Operating Procedures