Victoria's rail infrastructure

Statement of Freight Network Capability

OCTOBER 2023





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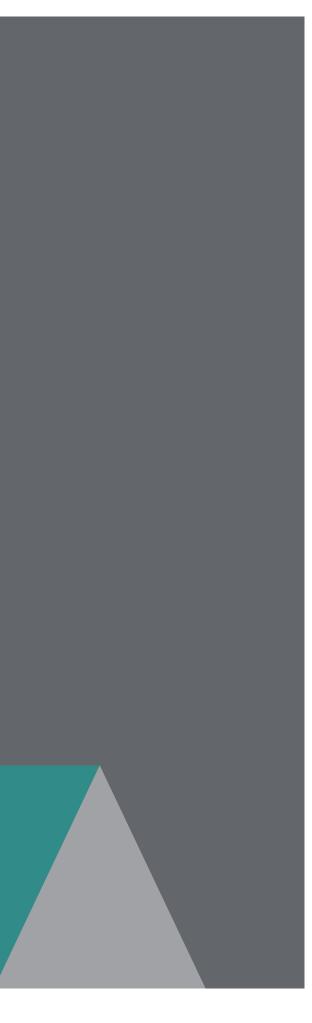
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Purpose

The Head, Transport for Victoria, is required to prepare a 'Statement of Network Capability' under Section 38P of the *Rail Management Act 1996*.

The Statement must:

- Describe the proposed level of access that may be provided by access providers (VLine, MTM) to access seekers (freight rail operators)
- · Provide information on the number of train paths for the provision of freight services
- Specifies railway track standards for the network.

The purpose of the Statement is to provide clear and concise information on the standard and availability of network access to rail freight operators to inform their planning and assessment for current, changed, or new services.

This information provided in the Statement also supports the Victorian Government's rail freight strategy and policies – including the goal of supporting the growth of rail freight volumes – through provision of more detailed, transparent information on network standards and availability.

The Statement provides access seekers with a more detailed level of rail knowledge of network capacity and availability to support the accuracy of planning before needing to engage with network managers.

Publication and revision

This Statement is required under the *Rail Management Act 1996* to be published on the Department of Transport and Planning (DTP) and Public Transport Victoria (PTV) websites.

The Victorian Government recognises the importance of a stable operating environment to enable rail freight volume to grow and for the industry to achieve its potential. The *Statement of Freight Network Capability* (the Statement) is prepared by the Department of Transport and Planning as a clear statement of the capacity and availability of the rail network to operate freight services, to provide greater clarity and certainty to customers and operators.

The Head, Transport for Victoria, is required to prepare the Statement under section 38P of the *Rail Management Act 1996*. The Statement also supports delivery of the objectives and range of actions under the Government's 2018 Freight Plan, Delivering the Goods.

A new Statement will be prepared upon any material change to the standard or capacity of the rail network or to the use or availability of network paths. The information contained within this document is current as at the stated date of publication until it is replaced by an updated statement.

All information provided is guidance only and should be confirmed with network managers to ensure the capacity and available information remains accurate in relation to any specific access request.

Overview of the Victorian rail freight network

This Statement is applicable to the declared Victorian metropolitan and regional rail network and includes information on connected infrastructure such as freight terminals and rail lines to ports.

The Victorian rail network consists of standard-gauge and broad-gauge lines. Limited sections of the network are also dual-gauge, which can be used by broad or standard-gauge trains.

The Victorian interstate, regional and metropolitan rail networks are owned by VicTrack and leased to the Department of Transport and Planning (DTP).

DTP sub-leases the network to three network managers (the access providers) that are responsible for operations, maintenance, and access provision.

These are:

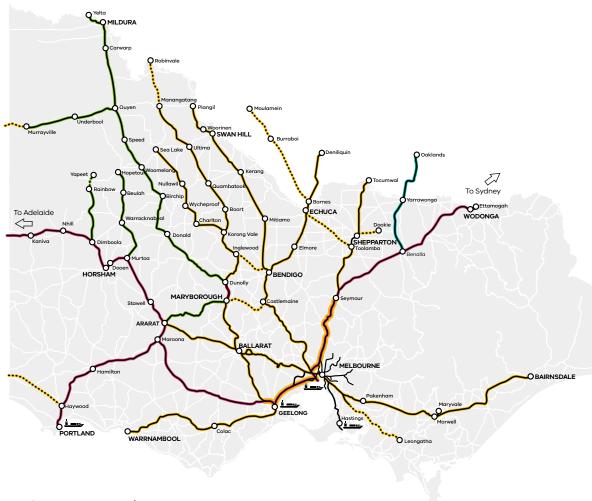
- MTM the metropolitan electrified network in Melbourne
- V/Line the regional broad and standard-gauge networks
- Australian Rail Track Corporation (ARTC) the interstate standard-gauge network, including the Maroona-Portland line!

V/Line and MTM provide passenger rail services on their respective networks. V/Line also provides passenger rail services over parts of the MTM network, for which they pay access charges to MTM.

The ARTC is solely an access provider and does not operate passenger or freight trains.

¹ The ARTC is also responsible for the 126km Benalla-Oaklands line under a Branch Line Infrastructure Agreement with the Victorian Government.

Victorian Regional Freight Network



ARTC - Interstate Network

Standard Gauge – Interstate Infrastructure Lease
 Standare Gauge – Branch Line Infrastructure Agreement

V/Line - Regional Infrastructure Lease

--- Broad Gauge

Dual Gauge

Standard Gauge

- Railway

····· Railway out of service

Port

Source: DTP

Metro Trains Melbourne (MTM)

MTM operates 400 kilometres of broad-gauge track on 15 lines around the metropolitan area.

Victorian regional and interstate rail freight services must pass through the metropolitan area to get to Melbourne freight terminals and the Port of Melbourne.

Interstate (and some regional) freight trains operate on the standard-gauge network, which is segregated from the MTM network. However, broadgauge regional freight trains frequently use parts of the MTM network to get to their destinations.

Freight trains operate on these MTM corridors:

- Werribee
- Sunbury
- Craigieburn
- Pakenham
- Frankston/Stony Point.

Freight trains are not timetabled in peak passenger service periods, which limits available freight paths across the MTM network.

V/Line

V/Line manages 2,617 kilometres of broad, standard, and dual gauge railway line, used for rail passenger and freight services in Victoria and operates Australia's busiest combined regional passenger and freight network.

Every week on its shared passenger/freight network, V/Line schedules more than 2,000 train services across Victoria on the following lines:

- Geelong and Warrnambool
- Ballarat, Maryborough, and Ararat
- Bendigo, Swan Hill, and Echuca
- Seymour, Shepparton
- Albury²
- Traralgon and Bairnsdale.

V/Line also provides access for rail freight services on its shared passenger/freight lines (1,257 kilometres) and freight-only (1,589 kilometres) rail lines.

Freight-only lines are:

- Dimboola Rainbow
- Murtoa Hopetoun
- Ouyen Murrayville
- Ararat Yelta
- Dunolly Sea Lake
- Korong Vale Manangatang
- Swan Hill Piangil
- Echuca Deniliquin
- Shepparton Tocumwal
- Warrnambool Dennington.

Australian Rail Track Corporation (ARTC)

The Australian Rail Track Corporation (ARTC) leases 997 kilometres of track in Victoria. The ARTC's Victorian standard-gauge network consists of the 317km Melbourne-Albury line, the 509km Tottenham-Serviceton (SA border via North Geelong and Maroona) line and the 171km Maroona-Portland line.

These lines form part of the ARTC's 8,500 km owned and leased national network.

This Statement does not apply to the ARTC leased lines or the 126km Benalla – Oaklands line, which is managed separately by the ARTC under the Branch Line Infrastructure Agreement.

The ARTC website provides comprehensive information including route maps, track diagrams and network configuration, standards, indicative section running times, committed capacity (train paths) and access charges.³

² The Melbourne-Albury line is leased to and managed by the ARTC.

³ artc.com.au/customers/

Freight terminals

Rail freight terminals are leased to, or owned by, private companies that either pack and/or transport freight.

Regional container terminals are in Dennington (near Warrnambool), Dooen, Merbein, Donald, Ultima, and Tocumwal.

Container trains from these terminals convey products such as grain, hay, pulses, wine, grapes, meat, and dairy products. Regional container trains also operate for specific customers such as containerised paper products from Maryvale, near Morwell.



Source: V/Line Corporation

Metropolitan intermodal terminals are located at Altona (SCT) and Spotswood (Sadleirs).

Port Rail Shuttle terminals are being developed at Somerton, Altona, and Dandenong South. Major new terminals are also being developed to serve the Commonwealth Government's Inland Rail project at Truganina (the Western Interstate Freight Terminal – WIFT) and Beveridge (the Beveridge Interstate Freight Terminal – BIFT).

Terminals for bulk aggregates are at Brooklyn and Westall, as well as terminals at Dynon and Hastings for the BlueScope Steel train.

Grain trains operate from an extensive network of regional terminals to the Port of Melbourne, Port of Geelong, and Port of Portland and to a domestic grain terminal at Kensington.

The Port of Melbourne (PoM) is a key freight hub, with terminals at West and East Swanston Docks, and Victoria Dock.

Dynon and South Dynon are also identified freight terminals under the Rail Management Act, as part of the declared rail network.

Dynon

VicTrack owns the Dynon Rail Freight Terminal (located north of Dynon Road) and works in partnership with Qube Logistics to provide intermodal freight services. Where other operators are seeking to access Dynon terminals, they can approach Qube to use the terminals under the terms of the leases with VicTrack.

The terminal offers standard and broad-gauge access and serves interstate and intrastate freight trains; and has a refuelling facility for Qube locomotives.

Upgrades to the terminal in recent years have supported government aims to improve Victoria's freight gateways and terminals, particularly in the Port of Melbourne precinct.

South Dynon

The Melbourne Freight Terminal at South Dynon, located between Footscray and Dynon Roads, is owned by VicTrack and leased to Pacific National for its interstate services. It is primarily standard gauge but has broad-gauge access from the east. The South Dynon complex also includes facilities for refuelling and light maintenance of Pacific National's locomotives.

Where other operators are seeking to access South Dynon terminals, they can approach Pacific National to use the terminals under the terms of the leases with VicTrack.

Access providers and access agreements

Freight rail transport services in Victoria are currently provided by four operators ('users' under the terms of the Act) – Pacific National, Qube Logistics, SCT Logistics and Southern Shorthaul Railway.

Operators on the State's rail networks must be accredited as defined under legislation by the Office of the National Rail Safety Regulator.

New operators seeking access to the rail network to operate freight trains require an access agreement with an access provider. The terms and access charges for the freight rail services they provide are specified in their access agreements, to the maximum value as set by the Minister.

The Rail Access Guidelines summarise what must be specified in a rail access agreement, the process to amend access agreements, the process to request access for rail services and the resolution of disputes between the access providers and access seekers.

Railway Track Standards

VicTrack owns Victoria's rail transport land, assets, and infrastructure. VicTrack works alongside the Department of Transport and Planning, Metropolitan Trains Melbourne, V/Line and Yarra Trams, and reports to the Treasurer, the Minister for Transport and Infrastructure and the Minister for Public Transport.

Most of the railway land, assets and buildings are leased to the network managers, and they are responsible for maintaining the assets leased to them.

Network managers (Accredited Rail Operators – AROs) are required to provide an Asset Management Plan (AMP), and a one-year Annual Works Plan (AWP) for approval. The AWP must also cover routine maintenance and Major Periodic Maintenance works to ensure safety and reliability of services.

AMPs and AWPs must comply with the relevant ARO's standards.

As part of the agreed Access Arrangements, Performance Standards for operators should be set that reflect the current level of track standards.

Train path utilisation and availability information and current track standards are detailed in Appendices 1, 2 and 3.

Train paths availability and track standards for freight services

Appendices 1, 2 and 3 below set out detail of the rail access paths currently being utilised and available to be utilised by section of rail track and the standard of that track in terms of line speeds and axle loads.

The information should be viewed as a guide only and subject to discussion with access providers.

Detailed information and data about the infrastructure, route capacity and the availability of train paths is documented by access providers. Access seekers should contact the access providers to discuss their specific requirements.

Route capacity and path allocation

In considering the information regarding path availability, freight operators should note that freight trains are generally not scheduled in peak passenger service periods and are limited in number during interpeak daytime periods. Access for rail freight services may also be limited by overall route capacity, which determines the availability of paths for freight trains.

Any specific path request may also require train operators to meet particular train performance standards to enable access to particular paths which may have limitations operating around passenger rail movements.

'Route capacity' refers to the maximum number of trains that can travel on a given section of rail line, in a set amount of time. This capacity depends on factors such as train performance, signalling, line speed, single line sections or other infrastructure limitations (such as the availability of crossing loops or holding roads where trains can be held while awaiting a path), and signal box operational hours.

Scheduled freight paths are allocated in the network timetable by access providers. These paths are available to access seekers to apply to use.

The availability of a path from origin to destination depends on the ability to connect paths between each route section, and may require trains to be held e.g., in a crossing loop, while awaiting a path into the next section.

DTP works with network operators to ensure scheduled freight train paths are integrated into timetable development. Ad hoc freight paths are also made available to operators by access providers according to agreed requirements.

Appendix 1:

Return train paths availability per day per line section

Table 1: Regional path availability

Line section	Line length (km)	Existing Utilisation (return paths per day)	Existing Capacity (return paths per day)
Dimboola – Rainbow	66	1	1
Murtoa - Hopetoun	112	1	1
Dunolly - Yelta	397	2	4
Korong Vale – Sea Lake	140	1	2
Korong Vale – Manangatang	175	2	3
Dunolly – Korong Vale	72	3	5
Maryborough – Dunolly	22	5	9
Ararat – Maryborough	88	2	4
Ballarat – Maryborough	68	3	5
Ballarat- Gheringhap	73	2	4
Ballarat – Wendouree	5	-	1
Ballarat – Sunshine	102	1	2
Geelong – Warrnambool	194	1	2
Warrnambool – Dennington	3	1	2
Werribee – Geelong	42	4	6
Sunbury – Bendigo	124	1	4
Bendigo – Swan Hill	183	1	2
Swan Hill – Woorinen	12	1	1
Woorinen – Piangil	32	1	1
Bendigo – Echuca	88	1	2
Echuca – Deniliquin	73	1	2
Craigieburn – Kilmore East	37	4	6
Kilmore East - Seymour	36	2	4
Seymour - Mangalore	10	2	4
Mangalore – Shepparton	73	2	4
Shepparton – Strathmerton	53	2	4
Strathmerton – Tocumwal	16	2	4
Pakenham – Traralgon	100	1	3
Traralgon – Bairnsdale	117	-	1

Table 2: Metropolitan path availability

Line section	Line length (km)	Existing Utilisation (return paths per day)	Existing Capacity (return paths per day)
Newport – Brooklyn	4	4	6
Brooklyn – Sunshine	2	2	2
Brooklyn - Tottenham	1	3	5
Sunshine – Tottenham	2	2	4
Tottenham – Dynon (Broad gauge services)	5	5	9
Southern Cross – Dynon/South Kensington	3.5	8	15
Jacana – Albion (ARTC) (Broad gauge services)	10	3	5
Caulfield – Flinders St	11	7	15*
Flinders St – Southern Cross	1	7	15*
Southern Cross – North Melbourne	1.5	1	1*
North Melbourne – Kensington	2	2	2
South Kensington – Footscray	2	=	=
Footscray – Newport	5	-	-
Newport – Werribee	21	4	6
Footscray – Sunshine	7	=	=
Sunshine – Albion	1	4	9*
Albion – KP24.2 (Melton Highway)	11	1	4
KP24.2 (Melton Highway) – Sunbury	14	1	4
North Melbourne – Kensington	3	2	2
Kensington – Broadmeadows	12.5	1	1
Broadmeadows – Craigieburn	9	4	14

^{*}Paths requested may require consideration of higher train specifications due to interpeak operational requirements

Appendix 2:

Track standards – Regional

(Subject to change – refer to V/Line Network Service Plan for latest information)

Line section	Line length (km)	Line speed for freight (km/h)	Track axle load (tonnes) ¹	Gauge	Track class
North-western Corridor					
Dimboola – Jeparit	37	50	19	SG	4
Jeparit-Rainbow	39	50	19	SG	4
Murtoa – Warracknabeal	53	50	19	SG	4
Warracknabeal -Hopetoun	59	50	19	SG	4
Ouyen – Murrayville	108	40	19	SG	5
Ouyen – Mildura	101	65	21	SG	3
Mildura – Merbein	11	65	21	SG	4
Merbein – Yelta	9	65	19	SG	4
Dunolly – Ouyen	263	65	21	SG	3
Korong Vale – Wycheproof	63	55	20	BG	4
Wycheproof – Nullawil	21	55	19	BG	4
Nullawil – Sea Lake	50	55	19	BG	4
Korong Vale – Boort	30	55	19	BG	4
Boort - Manangatang	146	40	19	BG	5
Dunolly – Inglewood	40	65	20	BG	4
Inglewood – Korong Vale	32	65	20	BG	4
Western/Southwestern Corric	lor				
Maryborough – Dunolly	22	65	21	DG	3
Ararat – Maryborough	88	65	21	SG	4
Ballarat- Gheringhap	73	80	20	BG	3
Ballarat - Sunshine	102	80	20	BG	1, 2, 2M
Ballarat – Maryborough	68	65	20	BG	3
Geelong – Warrnambool	194	80	20	BG	2
Warrnambool – Dennington	3	15	20	BG	5
Geelong – Werribee	42	80	20	BG	1, 2, 2M
Northern Corridor					
Sunbury – Bendigo	124	80	20	BG	1, 2, 2M
Bendigo – Swan Hill	183	65	20	BG	3
Swan Hill – Woorinen	12	40	20	BG	4
Woorinen – Piangil	32	40	20	BG	4
Bendigo – Goornong	45	80	20	BG	4,2M
Goornong – Echuca	43	65	20	BG	4
Echuca – Deniliquin	73	40	19	BG	4
Craigieburn – Kilmore East	37	80	20	BG	2

Line section	Line length	Line speed for	Track axle load	Gauge	Track class	
	(km)	freight (km/h)	(tonnes) ¹			
North-eastern Corridor						
Kilmore East - Seymour	36	80	20	BG	2	
Seymour – Mangalore	10	80	20	BG	2	
Mangalore – Shepparton	73	80	20	BG	3	
Shepparton – Strathmerton	53	65	20	BG	4	
Strathmerton - Tocumwal	16	65	20	BG	4	
Eastern Corridor						
Pakenham – Maryvale Exchange Siding	89	80	21 (north line 22 (south line)	BG	1, 2, 2M	
Maryvale Exchange Siding – Traralgon	11	80	19	BG	1, 2M	
Traralgon – Sale	49	NA	19	BG	3	
Sale – Bairnsdale	68	NA	19	BG	3	

Notes

^{1 20}TAL on 80 lb rail only permitted with 920mm diameter wheels (there are minor variations within these figures – refer to the Network Service Plan Train Operating Data)

Appendix 3:

Track standards – Metropolitan

(Subject to change – refer to ARO documentation for latest information)

Line section	Line length (km)	Line speed for freight (km/h)	Track axle load (tonnes)	Gauge
Inner/Inner West Corridors				
Newport – Brooklyn	5	50	19-23	BG, DG
Brooklyn – Sunshine	2	50	19	BG
Brooklyn - Tottenham	1	50	23	DG
Sunshine – Tottenham	2	15	19-23	BG, SG, DG
Tottenham – Dynon	5	15-40	19-23	BG, SG, DG
Dynon – Southern Cross	4	25	19	BG
Albion – Jacana	12	80-115	19-23	BG, DG
Central Corridor				
Caufield – Flinders St	11	25-50	22	BG
Flinders St – Southern Cross	1	25	22	BG
Southern Cross - North Melbourne (Regional Access Lines)	1.5	25	22	BG
North Melbourne – Kensington	2	30	20	BG
North Melbourne – South Kensington	2	35	22	BG
Werribee Corridor				
South Kensington – Footscray	2	35	20	BG
Footscray – Newport	5	50	20	BG
Newport – Werribee	21	80	20	BG
Sunbury Corridor				
Footscray – Sunshine	7	35-40	20	BG
Sunshine – Albion	1	40	20	BG
Albion – KP24.2 (Melton Highway)	11	Up 50, down 60	20	BG
KP24.2 (Melton Highway) – Sunbury	14	80	20	BG
Craigieburn Corridor				
North Melbourne – Kensington	3	30	20	BG
Kensington – Broadmeadows	12.5	40-65	20	BG
Broadmeadows – Craigieburn	9	80	20	BG
Pakenham Corridor				
Caulfield – Westall	10.5	45	22	BG
Westall – Dandenong	8.5	45	22	BG
Dandenong – Pakenham	3	65	22	BG
Dandenong – Lyndhurst	5	55 up, 45 down	20	BG
Frankston/Stony Point Corridor				
Caulfield – Long Island Junction	52	40-65	20	BG



