



TABLE TALK

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TOP TABLE TALK – HOW FAST IS YOUR TRAM?

By Jim Wells

Do we have a new speed champion with the opening on 20 April of the ACT's light rail from Civic to Gungahlin? The calculated timetabled average speed is 30 km/h. From a quick check of other lines in Australia it appears the answer is yes – see table. 30 km/h is not bad and is sometimes not even achieved by suburban trains. For example Central to Chatswood on Sydney's North Shore takes 26 minutes, yet the distance is only 11.7 km – speed 26.9 km/h. The Metro, due to open around 2024, will be much faster.

But there's a flip side to this. Also opening this year has been Newcastle's light rail with a depressingly low speed of 13.1 km/h. A good runner would have no trouble keeping up with the tram.

Some will note that the table doesn't necessarily cover all the route operated by the service and is not necessarily representative of the typical passenger experience.

Melbourne has no totally dedicated light rail lines. The lines can be grouped this way:

- Tram operation on four-lane streets, often with parked cars and no separation from other road traffic. Any congestion and the tram will be held up.
- Likewise on wider roads with only limited conflict with same direction road traffic. A prime example is St Kilda Road.
- "Mall" sections with only trams and pedestrians.
- "Light Rail" standard with dedicated right of way, either on converted railways, in median

or side strips, or purpose built such as Melbourne's line through Royal Park (route 58). Conflict with road traffic is only at intersections.

The route 96 example is for the section along the converted St Kilda railway line; the service is on street the rest of the way so overall average speeds would be much lower. The route 75 example is the outer section of the route along the median strip of the Burwood Highway. Almost all of the rest of the journey is along four lane roads.

The Adelaide and Sydney examples are again only for the substantially converted railway sections.

Melbourne speeds benefit from stops being request only. If the driver sees no one waiting at the stop and no passenger has pushed the stop button, the tram will only stop if traffic lights require it to or if the intersection is blocked.

The main reason for the Newcastle service being so slow is that the trams must stop at all stations for an extended dwell time to recharge the batteries.

The Canberra tram benefits from a high average distance between stops (1 km) and priority at signalled intersections. Canberra may not hold the speed crown forever because if a new station is built at Mitchell, north of EPIC, travel time will increase by a minute so lowering speed to less than 29 km/h.

The new Sydney light rail line opens next year and will have a variety of environments including Mall operation in the CBD and "light rail" standard along parts of Anzac Parade.



A Canberra tram.

Representative Light Rail Speeds (km/h)

| City | From | To | Rt No | J'ney Time Min. | Dist Km | Stops | Av Dist between stops | Average Speed | Top Speed |
|------------|-------------------|------------------|-------|-----------------|---------|-------|-----------------------|---------------|-----------|
| Adelaide | Brighton Road | South Terrace | | 24 | 8.7 | 15 | 0.6 | 21.7 | |
| Canberra | Alinga St | Gungahlin | | 24 | 12.0 | 12 | 1.0 | 30.0 | 70 |
| Sydney | Exhibition Centre | Dulwich Hill | LR1 | 25 | 10.8 | 18 | 0.6 | 25.8 | |
| Newcastle | Newc. l'Change | Newc. Beach | | 12 | 2.6 | 5 | 0.5 | 13.1 | |
| Melbourne | Vermont South | Gilmour St | 75 | 16 | 7.4 | 16 | 0.5 | 27.6 | |
| Melbourne | St Kilda station | Clarendon St | 96 | 10 | 4.5 | 7 | 0.6 | 27.1 | |
| Gold Coast | Helensvale | Broadbeach South | | 45 | 20.0 | 18 | 1.1 | 26.7 | 70 |

Sources: Wikipedia, Google Maps, Trip Planners, Timetables

RAIL AND TRAM NEWS

2019 Federal election

During the campaign for the 18 May Federal election, the Coalition promised (over a number of years):

- \$5 billion towards the Melbourne Airport railway.
- \$2 billion towards Melbourne-Geelong Fast Rail.
- \$260 million to replace the Glenferrie Road, Kooyong, level crossing in Melbourne with an underpass.
- \$3.5 billion towards a north-south railway through Badgerys Creek airport.

The Labor opposition promised (over a number of years):

- \$10 billion over a number of years towards the Melbourne Suburban Rail Loop, the proposed 90 km line circling around the suburbs with 12 underground stations connecting the city's major train lines.

- \$5 billion towards the Melbourne Airport railway.
- \$2 billion towards the Melbourne Metro rail tunnel.
- \$3-4 billion towards a north-south railway through Badgerys Creek airport.
- \$2.24 billion towards the \$5.4 billion Brisbane Cross-river rail project.
- \$200 million towards Canberra Tram stage 2, Civic to Woden.
- \$1 billion to begin buying the land corridor for an East Coast High-speed Railway between Melbourne-Canberra-Sydney-Brisbane.
- \$50 million to create a High-speed Rail Authority to finalise track alignment, start land acquisitions and finalise an updated business case for the project in consultation with Infrastructure Australia.

Pacific National and Aurizon: Acacia Ridge

On 15 May the Federal Court upheld the validity of the \$205 million sale by Aurizon of its intermodal terminal at Acacia Ridge, southern Brisbane to Pacific National. The Australian Competition and Consumer Commission lost its appeal. The ACCC had contended that the sale would inhibit competition among rail operators, but PN has promised to provide access to other operators.

Queensland Rail: Mt Isa line re-opens

Freight trains returned to the full length of the Mt Isa line on Monday 29 April, twelve weeks after the line was closed by unprecedented flood damage. The first train, carrying a mix of products including containerised freight and minerals, left Cloncurry at approximately 0110 and arrived at Townsville on Monday evening. A further two trains left Stuart and Partington in the early hours of Monday morning, travelling to Cloncurry and Mt Isa respectively.

The Inlander passenger train, which runs between Townsville and Mount Isa twice per week, resumed on 11 May.

Queensland Rail Citytrain WTTs

Queensland Rail are no longer issuing or printing Citytrain Working Timetables. It is believed that most guards now are just using the PIDS screens on the platforms for their times. Queensland Rail rural WTTs – mostly in graphical format – can be accessed at <https://www.queenslandrail.com.au/forbusiness/access/access-undertaking>

Queensland Rail Citytrain: Stations upgrade

Fairfield, Yeronga, Yerrongpilly, Morooka, Rocklea and Salisbury stations on Brisbane's southside will get a \$57 million upgrade to prepare them for Cross River Rail. This will include new lifts, upgraded overpasses and bike storage, better access for disabled passengers, parents with prams and travellers with luggage.

Transport Minister Mark Bailey Mr Bailey said all six stations needed modernisation before a third platform was added as part of the \$5.4 billion Cross River Rail project. He said the State government was still confident of delivering Cross River Rail by 2024, despite Federal Labor's loss in the 18 May election meaning there would be no Federal funding.

Aurizon: Coal haulage

Aurizon has resolved its long-running dispute with key mining customers over revenue on the Central Queensland Coal Network, announcing an agreement towards a revised access deal on 3 May. Aurizon will now submit a draft amending access-undertaking document to the Queensland Competition Authority, after it came to terms with miners representing more than 90% of the tonnes moved – Anglo American, BHP, Coronado, Glencore, Idemitsu, Jellinbah, Kestrel, Middlemount, Peabody, QCoal and Yancoal.

Queensland Nickel: Train operator?

The still-closed Queensland Nickel Refinery north of Townsville is moving to begin its own rail operations. It has applied to the National Rail Safety Regulator to become an accredited rail operator.

QR owns the balloon loop used for loading at the Townsville Jetty and the balloon loop used for unloading at Cobarra, plus the intermediate sections of the Jetty branch and the North Coast line. However Aurizon retains ownership of the Cobarra yards, locomotive shed and servicing facilities - and the company is currently using the yard to store various nickel ore, Mt Isa concentrate and cattle wagon sets. Aurizon is also Queensland Nickel's largest unpaid creditor. If Queensland Nickel was to begin its own operations, the Aurizon-owned yard would most likely be a key element for servicing and operating Queensland Nickel trains.

Based on Aurizon's operations after Clive Palmer purchased the refinery in 2009, a minimum of three 36-wagon sets and four 2000hp-3000hp locomotives will be required for the port-to-refinery nickel ore operations, with up to nine loaded trains running per day to shift 4-million tonnes of ore from the jetty per annum. Additionally, if the refinery was to resume coal railings from Collinsville, another 47-wagon set and two locomotives would be needed - the refinery consuming around 400,000-tonnes of coal per annum. Additional sets and locomotives may also be needed if nickel ore production resumed at the QNI-owned 1 million tonne per annum Broilga Mine at Glen Geddes, north of Rockhampton.

ARTC: WTT amendments

The following amendments to the 28 April 2019 Master Train Plan are effective from 30 June:

NSW/VIC

Amend: T131 for-MTWT will run as tabled to arrive Enfield 2206, depart 2228, pass Flemington Metropolitan Freight Network Border 2239.

Amend: T135 for MTWTF will run as tabled to arrive Enfield 2105, depart 2211, pass Flemington MFN Border 2223.

NSW/VIC and NSW/QLD

Cancel: 2SB1, 4SB1, 6SB1, 2BS6, 5BS3 and 7BW2.

VIC/SA

Add: 1221S Saturdays will depart Flinders Ports 0140, arrive Mt Barker Junction 0350, depart 0420, arrive Monarto South 0459, depart 0531, pass Tailem Bend 0607, arrive Tintinara 0724, depart 0754, arrive Bordertown 0900 terminate.

Add: 2122S Saturdays will depart Bordertown 2045, pass Tailem Bend 2302, arrive Monarto South 2338, depart 2356, arrive Mile End 0210, depart 0225, pass Islington Yard 0248, arrive Pelican Point Loop 0314, depart 0352, arrive Flinders Ports 0400 terminate.

NSW/

Cancel: 8822N and 8823N (also see next item).

(ARTC Train Alteration Advice 578-2019 refers.)

John Holland Rail Country Regional Network: WTT amendments

At the request of Pacific National, commencing Friday 31 May, the following alterations apply to the 28 April Working Timetable:

8823 (PNRB 600m) (Goonumbla-Parkes mineral) Saturdays is deleted.

8822 (PNRB 600m) (Parkes-Goonumbla mineral) Tuesdays is deleted.

(JHR CRN Country Train Notice 140-2019 refers.)

ARTC: Train Control

The ARTC Coast “A” Train Control Board, controlling from Telarah to Kempsey on the NSW North Coast line, was relocated from Broadmeadow to Junee on 6 April. The Coast “B” Train Control Board, controlling from Kempsey to Acacia Ridge, was relocated on 7 April.

ARTC: Hunter Valley

The Australian Rail Track Corporation has detailed plans to improve coal train capacity in the Hunter Valley. The combined strategy of longer trains and trains that can run closer together is intended to increase capacity, boosting productivity and efficiency. The Hunter Valley coal chain feeds coal to busy export terminals at Port Waratah and Koorogang Island, Newcastle. Train length in the Hunter Valley is limited to 1,543 metres at present, but the ARTC stated in a report that increasing train lengths could be “a potentially effective mechanism to increase capacity when implemented in a systematic manner”.

The plans form the backbone of the ARTC’s 2019 *Hunter Valley Corridor Capacity Strategy*, which looks at ways to provide capacity to meet contracted coal volumes, in line with the ARTC Hunter Valley Access Undertaking (HVAU).

The ARTC points to in-house technologies such as the Network Control Optimisation (ANCO) project and Advanced Train Management System (ATMS) as ways to offer significant improvements in efficiency, by increasing the use of existing assets through digitisation for a relatively low cost, in keeping with the preference of thermal coal producers.

The ARTC also advised that empty trains travelling on single track sections be allowed to travel at 100km/h. Trains with 120-tonne capacity wagons are currently permitted to run at 60km/h when loaded and 80km/h when empty. It will work with operators to undertake analysis and risk assessment to determine the viability of this speed increase.

Sydney Metro

Sydney Metro stage 1 to the NW Hills suburbs commenced operation on Sunday 26 May. During the initial settling-in period of six weeks, trains operate every five minutes in peaks and ten minutes off-peak. Assuming a three minute turnaround, this will require 16 trains. After setting-in, peak frequency will improve to every four minutes. Hours of operation are: 0500-2130 Sunday-Wednesday, 0500-0000 Thursday, 0400-0130 Friday and Saturday. The early finish on Sunday to Wednesday evenings is because there is additional work or staff training necessary. This period will be covered by buses.



M Chatswood to Tallawong M

| Valid from: 27 May 2019 | | Creation date: 06 May 2019 NOTE: Information is correct on date of download. | | | | | | | | | | | | | | | | | | |
|-------------------------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Monday to Friday | | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | |
| Day Restrictions | F | F | * | * | * | * | * | * | * | * | * | * | ThF | ThF | F | F | F | F | F | |
| Service Information | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| Chatswood | 04:25 | every | 04:55 | 05:05 | every | 07:05 | every | 09:40 | every | 16:20 | every | 19:25 | every | 22:05 | 22:15 | every | 00:45 | 00:55 | every | 01:45 |
| North Ryde | 04:31 | 10 | 05:01 | 05:11 | 10 | 07:11 | 5 | 09:46 | 10 | 16:26 | 5 | 19:31 | 10 | 22:11 | 22:21 | 10 | 00:51 | 01:01 | 10 | 01:51 |
| Macquarie Park | 04:33 | mins. | 05:03 | 05:13 | mins. | 07:13 | mins. | 09:48 | mins. | 16:28 | mins. | 19:33 | mins. | 22:13 | 22:23 | mins. | 00:53 | 01:03 | mins. | 01:53 |
| Macquarie University | 04:35 | | 05:05 | 05:15 | | 07:15 | | 09:50 | | 16:30 | | 19:35 | | 22:15 | 22:25 | | 00:55 | 01:05 | | 01:55 |
| Epping | 04:38 | | 05:08 | 05:18 | | 07:18 | | 09:53 | | 16:33 | | 19:38 | | 22:18 | 22:28 | | 00:58 | 01:08 | | 01:58 |
| Cherrybrook | 04:44 | | 05:14 | 05:24 | | 07:24 | | 09:59 | | 16:39 | | 19:44 | | 22:24 | 22:34 | | 01:04 | 01:14 | | 02:04 |
| Castle Hill | 04:47 | | 05:17 | 05:27 | | 07:27 | | 10:02 | | 16:42 | | 19:47 | | 22:27 | 22:37 | | 01:07 | 01:17 | | 02:07 |
| Hills Showground | 04:49 | | 05:19 | 05:29 | | 07:29 | | 10:04 | | 16:44 | | 19:49 | | 22:29 | 22:39 | | 01:09 | 01:19 | | 02:09 |
| Norwest | 04:52 | | 05:22 | 05:32 | | 07:32 | | 10:07 | | 16:47 | | 19:52 | | 22:32 | 22:42 | | 01:12 | 01:22 | | 02:12 |
| Bella Vista | 04:54 | | 05:24 | 05:34 | | 07:34 | | 10:09 | | 16:49 | | 19:54 | | 22:34 | 22:44 | | 01:14 | 01:24 | | 02:14 |
| Kellyville | 04:57 | | 05:27 | 05:37 | | 07:37 | | 10:12 | | 16:52 | | 19:57 | | 22:37 | 22:47 | | 01:17 | 01:27 | | 02:17 |
| Rouse Hill | 05:00 | | 05:30 | 05:40 | | 07:40 | | 10:15 | | 16:55 | | 20:00 | | 22:40 | 22:50 | | 01:20 | 01:30 | | 02:20 |
| Tallawong | 05:02 | | 05:32 | 05:42 | | 07:42 | | 10:17 | | 16:57 | | 20:02 | | 22:42 | 22:52 | | 01:22 | 01:32 | | 02:22 |
| Saturday & Sunday | | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | (S) | |
| Day Restrictions | * | * | * | Sa | |
| Service Information | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | |
| Chatswood | 04:25 | every | 22:05 | 22:15 | every | 01:45 | | | | | | | | | | | | | | |
| North Ryde | 04:31 | 10 | 22:11 | 22:21 | 10 | 01:51 | | | | | | | | | | | | | | |
| Macquarie Park | 04:33 | mins. | 22:13 | 22:23 | mins. | 01:53 | | | | | | | | | | | | | | |
| Macquarie University | 04:35 | | 22:15 | 22:25 | | 01:55 | | | | | | | | | | | | | | |
| Epping | 04:38 | | 22:18 | 22:28 | | 01:58 | | | | | | | | | | | | | | |
| Cherrybrook | 04:44 | | 22:24 | 22:34 | | 02:04 | | | | | | | | | | | | | | |
| Castle Hill | 04:47 | | 22:27 | 22:37 | | 02:07 | | | | | | | | | | | | | | |
| Hills Showground | 04:49 | | 22:29 | 22:39 | | 02:09 | | | | | | | | | | | | | | |
| Norwest | 04:52 | | 22:32 | 22:42 | | 02:12 | | | | | | | | | | | | | | |
| Bella Vista | 04:54 | | 22:34 | 22:44 | | 02:14 | | | | | | | | | | | | | | |
| Kellyville | 04:57 | | 22:37 | 22:47 | | 02:17 | | | | | | | | | | | | | | |
| Rouse Hill | 05:00 | | 22:40 | 22:50 | | 02:20 | | | | | | | | | | | | | | |
| Tallawong | 05:02 | | 22:42 | 22:52 | | 02:22 | | | | | | | | | | | | | | |

Sydney Trains: Patronage

The number of commuters travelling by train into Sydney's CBD during the busiest hour of the morning peak has surged by almost 8000 in a year, leading to crowding and putting more pressure on central city stations and the broader rail network. With Sydney's population booming, passenger crowding on trains has worsened over the past year on many of the city's rail lines during the morning peak.

Average passenger loads on trains on the T1 Western, T1 Northern (via Strathfield), the T4 Illawarra and the T8 South lines between 0800 and 0900 were at least 140% in September last year, new figures from the state's transport agency show. Passengers start to experience overcrowding when trains reach loads of 135%, which is the benchmark used by transport officials. Overcrowded carriages also make it more difficult for trains to run on time, because of the longer stopping times needed to load and unload passengers.

In a sign of the pressure on the system, patronage on the suburban rail network is growing at 7% a year, compared with the historical growth rate of 1.2% per annum. In the past five years, train patronage has surged by 30%.

Major relief from crowding on trains and stations in the CBD is still four years away when the second stage of a metro train line is due to open from Chatswood to the CBD, Sydenham and Bankstown.

Trains on the T8 Airport Line also recorded average loads of 132% in September last year, compared with 126% in the same month a year earlier. The Airport line is under pressure from an influx of people moving into high-rise apartments at Green Square and Mascot in the inner south, and greater demand for trains to and from Sydney Airport. Trains on three lines – the T1 Northern via Strathfield, the T1 Western and the T5 Cumberland – each had passenger loads during the morning peak in September as high as 180%. Average loads of 154% on the T5 Cumberland Line in September showed that Parramatta needed to become an immediate focus of transport investment.

Town Hall is one of the stations under acute pressure. Passengers there reached 68 million in the 12 months to June last year, a 23% rise on the 55 million passengers in the 2015-16 financial year. That equates to about 13 million extra passengers.

The crowding on trains is also likely to explain why Sydney Trains has failed to meet its punctuality targets for the past three months of at least 92% of services arriving within five minutes of its scheduled time during the morning and evening peaks. Transport for NSW said it had forecast patronage on the rail network to grow by 21% between 2016 and 2021, which was why it was taking steps to ensure services kept pace with demand.

Sydney Trains: Carriage capacity indicators

Screens next to platforms at some key Sydney stations have been introduced which calculate how many

customers are on board trains and where there's space in each carriage. Weight sensors on the 100 Waratah A and B trains — about half of the Sydney Trains fleet — will send real-time information to the platforms. The displays will be connected to trains on the T1 North Shore and Western, T2 Inner West and Leppington, T3 Bankstown, T5 Cumberland, T7 Olympic Park (weekends only), T8 Airport and South and T9 Northern lines. The carriage capacity indicator has been on real-time apps for over a year. Arrows and signs on stairs encouraging commuters to keep to the left and platform markers are also at congested stations.

Sydney's public transport has been confronted with surging use — in March 2017 there were 30,682,314 individual trips on Sydney trains. By March 2019 that had increased by 6.9% to 32,800,539.

Sydney Trains: Disruption 29 April

On the first working day of the new timetable, Monday 29 April, a broken power cable at 0300 caused chaos on Sydney Trains, disrupting signalling systems and leading to major delays across the network during the morning peak. The damaged 11 kilovolt power line affected all signals on all six lines between Ashfield and Strathfield. This was repaired before 0600. However passengers were asked to continue to allow extra travel time. Some services on the T8 Airport line were delayed by more than one hour. Services on the T1 North Shore, Northern and Western lines experienced delays of up to 40 minutes, while some T3 Bankstown line trains were delayed by more than 30 minutes. Some services on the T2 Inner West and Leppington line were delayed by up to an hour, while other T2 services were cancelled. T4 Eastern Suburbs and Illawarra line services were unaffected. Buses supplemented train services between Campbelltown and Macarthur, Glenfield and Leppington, Hornsby and Berowra and Blacktown to Richmond.

Sydney Trains: Carlingford branch

An unconfirmed rumour suggests that the Carlingford branch will be closed on the weekend of 18/19 January 2020 for conversion as part of the Parramatta tramway.

Sydney Trains and NSW TrainLink: Future

An unconfirmed rumour suggests that Sydney Trains and NSW TrainLink may be re-amalgamated.

Transport for NSW: Picton Loop line

Prior to the recent NSW election, the Coalition promised to re-open the Buxton-Colo Vale portion of the Picton Loop line (former Southern mainline) for heritage train operation.

John Holland Rail Country Regional Network: Tottenham branch

Yet another unconfirmed rumour is that the Bogan Gate to Tottenham branch in Central West NSW (used for wheat transport) may soon be placed on a "care and maintenance basis", in effect closing the line. If so, the two special passenger trains on 24 May to Trundle (reported in *May Table Talk*, page 8), may have been the last trains.

NSW TrainLink: Future services

A further unconfirmed report is that after NSW TrainLink's new long-distance trains come into service from 2023 onwards, some Xplorer DMUs will be retained. These are expected to provide day return services from Sydney to Cootamundra and Taree.

NSW TrainLink: Broken Hill special

NSW TrainLink will again operate a special train for the Silver Stiletto Festival in Broken Hill. Presumably this will be an Xplorer DMU. This year, departure from Sydney on Thursday 12 September will be at 0719, stopping at Strathfield, Parramatta, Lithgow, Bathurst and Parkes to arrive at BH at 2130 CST. The train will return as an additional journey departing BH on Friday 13 September at 0650 CST, arriving Sydney at 2235. Festival attendees will return on the regular train on Tuesday 17 September departing BH at 0745 CST arriving Sydney at 2130.

NSW TrainLink: Bus additions and deletions

Commencing 8 April an additional trial NSW TrainLink bus commenced. It runs five days a week from Wagga Wagga to Canberra/Queanbeyan and return. On Mondays and Fridays departure from Wagga is at 0700 with operation via Gundagai, Canberra Civic, John James Hospital, Canberra Hospital and Canberra station to Queanbeyan station, due 1055. Return is at 1630 arriving Wagga at 2025. On Tuesdays, Thursdays and Saturdays it also departs Wagga at 0700 but runs via Junee and Cootamundra, then the same stops to Queanbeyan at 1120. Return departure is also at 1630 with Wagga arrival at 2050.

From 10 June the frequency of the Monday-Friday 0900 Goulburn-Canberra bus and 1355 return is reduced from Mondays-Fridays to Mondays, Wednesdays and Fridays. Patronage on this trial has been meagre.

CMET Canberra Tram

Patronage on the new Canberra Tram is consistently heavy – peak, off-peak and weekends. However, this is still within the month of free, introductory travel. Consequently, the period of peak frequency has been extended from 0900 to 0930 and from 1800 to 1830, and peak frequency improved from every 6 minutes to 5 ½ minutes. Patronage is well ahead of projections.

Metro Trains Melbourne: Sandringham line works

Major works at South Yarra for the Metro Tunnel will result in buses replacing trains on the Sandringham line from 21 May to 9 June. Premier Daniel Andrews said the government had no choice but to close rail lines and city streets to manage construction. "We're going to have to ask Victorians for their patience and for them to make alternative arrangements to deal with the pace that we are doing. If we don't have some construction related disruption now, we'll have nothing but disruption and congestion into the future," he said.

Melbourne level crossing removal

The Victorian government plans to remove eight level crossings in Melbourne's north. Level crossings at Bell St, Reynard St and Munro St in Coburg and Moreland Road in Brunswick (Upfield line) will be removed at the same time by elevating the line. The other four level crossings at Murray Road, Bell St, Cramer St and Oakover Road in Preston (Mernda line) will be dealt with through the construction of a rail bridge. The removal of the Coburg and Brunswick crossings is expected by 2020. The Preston removals are set to be completed in 2021 following the commencement of major works next year. New stations will be built at Preston, Bell, Coburg and Moreland, while also preserving the existing heritage-listed Coburg and Moreland station buildings.

The works form part of the larger Level Crossing Removal Project, which plans to remove 75 "dangerous and congested" level crossings in Melbourne by 2025.

In addition, construction works will begin in the next year to remove two crossings on the Pakenham line by 2021. These are at Clyde Road in Berwick and Cardinia Road in Pakenham, and will join the nine that have already been removed across the south-eastern line. The Clyde Road crossing in particular has been cited by the government as a source of delay for ambulances travelling to Casey Hospital, as well as a notable congestion point on the Princes and Monash freeways.

V/Line: Train Control

Train Control Rooms on V/Line as at April 2019 are:

1. Back up Regional Rail Link.
2. Mildura line: North Geelong-Ballarad East, North Ballarat-Maryborough-Yelta, Ouyen-Paninya, Dunolly-Inglewood-Robinvale, Korong Vale-Mittyack, Ararat-Maryborough-Moolort, Waurm Ponds-Warrnambool, Murtoa-Hopetoun, Dimboola-Yaapet.
3. Senior Train Controller.
4. Bendigo Corridor: Melbourne-Epsom and Eaglehawk, Eaglehawk-Swan Hill-Piangil, Epsom-Echuca-Moulamein, Eaglehawk-Inglewood.
5. Ballarat Corridor: Melbourne-Ballarad-Wendouree-Ararat.
6. Regional Rail Link Signalling Zone 2: Spencer St platforms 15/16 to Spion Kop and Melbourne Yard.
7. Regional Rail Link Signalling Zone 3: South Kensington-Deer Park-Manor and Deer Park West, Sunshine GEB Siding.
8. Geelong Corridor: Melbourne-Waurm Ponds.
9. Traralgon Corridor: Melbourne-Sale-Bairnsdale.
10. Seymour Corridor: Sunshine-Brooklyn, Brooklyn-Newport (West line), Melbourne-

Seymour-Tocumwal, Shepparton-Dookie, Toolamba-Echuca.

All rooms operate 24 hours, except room 7 (which is closed 0130 to 0700 on Sundays) and room 1 (back-up).

Train services are suspended on Barnes-Moulamein, Moolort-Maryborough, Sea Lake Mittyack, Manangatang-Robinvale, Eaglehawk-Inglewood, Murrayville-Panitya, Shepparton-Dookie and Rainbow-Yaapet lines.

(*Network Service Plan Network Operating Requirements* refers, accessible at <https://corporate.vline.com.au/Network-Access/Network-service-plan>).

V/Line's WTT 31 March

The V/Line South Western WTT has been changed to include stations Wyndham Vale, Tarneit, Deer Park, Ardeer and Sunshine.

Pacific National and V/Line: Merbein freight

Further to the item in May *Table Talk*, pages 9 and 10, recording the 28 April schedules on V/Line track for the Pacific National container trains to/from Merbein, these have been altered again from 20 May. On Mondays and Wednesdays, the up freights now depart Merbein 20 minutes earlier at 2045 and 2130 respectively.

ARTC: Portland line

The ARTC line from Maroona to Portland, Victoria was temporarily closed from 14 April. It may be re-opened on two weeks notice.

TransWA: Australind disruption

From 2 May, for an unknown period, buses replaced the Australind services between Bunbury and Perth due to ongoing mechanical issues with the train.

WA Budget

The WA Budget, delivered on 9 May, included the following Perth railway items:

- \$4.1 billion allocated to Metronet projects in total over the forward estimates (more than \$1.2 billion allocated in this Budget) for Byford extension, Morley-Ellenbrook line, Midland station project and Karnup station. Six rail projects totalling 72 km being planned or under construction.
- Forrestfield-Airport link: The \$1.9 billion project will see first trains operate in the second half of 2021, with new stations at Redcliffe, Airport Central and Forrestfield.
- Thornlie-Cockburn link: The \$536 million project will extend the Thornlie line to Cockburn, the first stage of a potential Circle line, with new stations at Nicholson Road and Ranford Road.
- Byford extension: Planning work is continuing to extend the Armadale line south to Byford.
- Yanchep extension: The \$520 million project will extend the northern suburbs line to

Yanchep, with new stations at Alkimos, Eglinton and Yanchep.

- Midland station project: Planning work is continuing, including a new station and line extension to Bellevue.
- Building 246 new Metronet railcars.
- \$415 million allocated for a boom gate removal program on the Armadale line.
- Construction to remove the Denny Avenue level crossing in Kelmscott will start later this year. \$207.5 million will be provided over the next four years to remove level crossings at Oats St, Mint St and Welshpool Road, plus planning underway to investigate options for Wharf St, Hamilton St and William St on the Armadale line. Further planning work is underway to remove the Caledonian Avenue level crossing on the Midland line.

The Victorian Budget will be delivered on Monday 27 May. Given the recent trend for this to include significant railway and public transport items, it will probably be the subject of a special edition of *Table Talk Newswire* email. The Queensland Budget is scheduled for 11 June and SA on 18 June. The 2019 NSW Budget is expected in late June.

Tasmanian Budget

The Tasmanian Budget, delivered on 23 May, included:

- In partnership with the Federal government, \$256 million over four years to build capacity in the TasRail network.
- \$16 million over four years to upgrade the West Coast Wilderness Railway's infrastructure and expand capacity with new rollingstock. This follows prior state funding for the railway of \$18.5 million since 2014.

KiwiRail: Northland expansion

A business case for the Northland Rail project in NZ has stated that it will provide value if freight links are built between Auckland and Marsden Point at Northport. The report said that without "increased and ongoing investment" rail services on the North Auckland Rail line could cease within the next five years.

The current plans for the 40-year, \$1.3 billion North Island project include upgrading the main line from Auckland to Whangarei; reopening lines from Whangarei to Moerewa in the north and Whangarei to Dargaville in the west; and constructing an easterly spur to the deep-water port of Northport. The report also said there was a "strong strategic case" for renewal and upgrade of the North Auckland Rail line, including the construction of a spur link to Marsden Point based on potential changes to freight flow within the upper North Island.

Over 55% of NZ's freight moves through the Northland, Auckland, Waikato and Bay of Plenty regions, and the business case estimated that freight demand in the North Island will grow significantly over the next 30 years. As such, the creation of a high-

quality rail connection to Northport would be “a critical pre-condition” to facilitate the increased movement of containers in future.

The business case also showed that investment would return \$1.19 for every dollar spent, with over half of the benefits related to the ensuing decongestion of Auckland’s road freight. Only 1.4% of Northland freight is currently delivered by rail, compared with 7% nationally.

European timetables discontinued

The Italian hard-copy *Orario Generale Veltropalagi*, a comprehensive privately published timetable covering all of Italy, is no longer being published. It has been published since about 1946. The final edition was no. 185, valid until 8 June 2019. After *Pozzorario*, which ended many years ago, and then *In Treno*, this is the third and last of the comprehensive Italian timetable books to come to an end.



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Alta Velocità
Al completo le linee
di Trenitalia e Trenord
Linee a lunga percorrenza
Ferrovie in concessione

Orario Generale

valido fino all' 8 Giugno 2019

L'editore è l'unico responsabile circa l'esattezza dei dati orario riportati nella presente pubblicazione, che non riveste alcun carattere di ufficialità rispetto agli orari di Trenitalia S.p.A. e Trenord S.r.l.

The hard-copy timetable published by the German State of **Sachsen-Anhalt** will no longer be published. The final edition was December 2018. German States still producing hard-copy timetables (there is no national hard-copy timetable) are Baden-Württemberg, Bayern (Bavaria), Hessen, Nordrhein-Westfalen, Schleswig-Holstein and Thüringen.

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LETTER TO THE EDITORS

Inland Rail: Acacia Ridge to Port of Brisbane

Max Michell writes: I hesitate to do this (given the item is already a correction to earlier words) but the item "ARTC - Inland Freight Railway" (May *Table Talk*, page 4) needs amplification in regard to the existing (and need for a future) line to Fisherman Islands.

The existing SG route from Acacia Ridge to Fisherman Islands is actually dual gauge (DG) throughout. It is used by the daily XPT as far as Dutton Park and freight shunt trips to Rocklea on SG, but more importantly is heavily used by inbound Gold Coast express trains in peaks (with some inter-peak running). Outside peaks, most inbound coal, grain and container trains headed for the Port use this line (from Yeerongpilly in) to avoid mixing it with Beenleigh and Cleveland line suburban trains and particularly to avoid the junction at Park Road. Outbound (largely empty) NG trains are mostly run on the passenger lines. There is no (regular) use of the SG line east of Dutton Park. The new Cross River suburban line, now under construction, will result in much higher use of the dual gauge track between Salisbury and Dutton Park to the point where freight use of that line will be significantly constrained.

The Inland Railway will have ruling grades of 1 in 100 or flatter (apart from the (southbound) 1 in 60 ascent of the Main range to the back of Toowoomba and the 1 in 50 sections in Victoria south of Seymour - although

these are effectively 1 in 66 grades for long freight trains). The current DG line between Acacia Ridge and the Port has a ruling grade of around 1 in 70 on sharp curves, so is incompatible with Inland Railway operations in any case, especially since the vast majority of Port traffic will be regional freight from SW QLD and NW NSW. ARTC are planning to make the Inland line DG from near Yelarbon through to Acacia Ridge (there are some sensible alternatives but I suspect ARTC are trying to get Queensland to stump up money) so Queensland traffic can run through to Brisbane on narrow gauge trains but without the loading outline and alignment problems that beset the existing line. In this regard the current Port line would be an impediment to good train running even if it was free of passenger trains.

Because the Port is on a virtual peninsula on the far side of developed Brisbane there are no easy solutions to a decent well aligned and graded freight route linking to that location. The two proposals I am aware of involve either two long (circa 8 km each) end-to-end tunnels under the suburban area or an alignment parallel to the Gateway Freeway, with a mixture of tunnels and viaducts with some pretty complex works to deal with all the on and off ramps, and future freeway expansion (added lanes). Hence the enquiry looking into a future route.

AIR NEWS

Domestic

Virgin Australia is planning to cancel "underperforming" routes. This includes Perth-Geraldton and out-of-season flights Sydney-Auckland and Sydney-Christchurch. There will also be a reduction of services to Perth, Canberra, Kalgoorlie, Ballina and Proserpine.

Sharp Airlines' Warrnambool and Portland to Essendon, Melbourne service will cease from 30 June. "It's a decision that has not been taken lightly," Mr Sharp said. Despite a 12 to 18-month campaign by the airline to increase the patronage and stimulate the

market, the service had become economically unviable," he said. Sharp Airlines continues to fly between Melbourne (Essendon), Flinders Island, King Island, Launceston and Burnie (Wynyard).

International

Cathay Pacific will withdraw from its Cairns-Hong Kong route from 27 October. It is estimated the flight brought about 30,000 international visitors to Cairns each year.

Thanks to Paul Brown, Steven Haby and the *Weekend Australian* for Air news.

BUS NEWS

NEW SOUTH WALES

On-Demand in Macquarie

ATA member **Jim Wells** reflects on his recent experiences with this 'on demand' bus service:

For some time I have been meaning to ride the Keolis Downing "On Demand" bus service in Sydney's Macquarie area. See <https://www.keoride.com.au/> for further information. Living in Lindfield I thought I was inside the service area which is surprisingly large.



I think it has been reduced in size because when I checked it earlier even East Lindfield was included. I don't know what the significance of the Central Precinct is. I decided to book by phone the day before. I got Kev quickly on the line who said I had to open an account. It became clear that this would not be a quick operation, so I said I would download the app to my tablet (no sim card) and open an account using it. This required an email address, mobile phone number and a credit card number with a security code text message sent to the mobile.

I then requested the trip; home to Macquarie Uni at 9 am next day. No great trouble with day and time which is in half hour bands. By the way there is no service between 10 am and 3 pm, or after 7 pm or at weekends. The Northern Beaches service has much better hours. But I couldn't get the app to accept a destination. In frustration I rang Kev who took over the booking manually. He said I was outside the service area but would accept a pick-up at Killara station which is about a 15 minute walk from home. I've always understood that home pick-ups were not guaranteed and that a walk might be necessary.

It turns out that the service is all about getting people to Macquarie. This probably is the significance of the Central Precinct. Don't ask it to take you from Hunters Hill to Woolwich; they might accept this but only if they have other bookings in the area. They will probably

accept Hunters Hill to Gordon on the basis that you will be "hubbed" at Macquarie which may involve a wait. The map is defective with respect to the location of Killara station. This is not on the Pacific Highway but several hundred metres to the East. Note the interesting kink in the map to include Turramurra station.

So now to the actual travel experience. I arrived at Killara station a few minutes early with the following thoughts in mind.

- How long would I have to wait?
- How many passengers would already be on the bus?
- How many passengers would be picked up en route and where?

I turned on the mobile phone in case they were trying to contact me. Bad mistake; I should have had it on earlier.

There were two text messages; the first at 8:45 stated that the ride was 18 min away and the pick-up would be at a specific street address close to the station. The second at 8:53 stated that the ride was a few minutes early and said "Please check your app or text this number for an updated ETA". I then got a voice call from the driver. All I could understand was that he was at Gordon. I simply said I was at Killara station. A couple of minutes later he arrived.



(Sorry about the man in front; he is not the driver.)

The vehicle was a nine seater Mercedes Sprinter; easy to board with more than adequate headroom. Rode well and was quiet. There's space in the back for luggage, collapsible wheelchairs etc. Apparently, there are smaller vehicles in the fleet which totals fourteen.

Answers to the questions posed above:

- Basically I didn't have to wait after 9 am
- There were no other passengers on board.
- No other passengers were picked up en route.

The driver was a very pleasant man from Chennai in India. He had one passenger on the outbound trip to a

stop in North Ryde. Many trips carry up to five people. He had another pickup on his next trip which would be the final one for his first shift of the day. They work split shifts. He was most anxious to take me exactly where I wanted to go and entered the University grounds to drop me off.

The trip cost \$5.60; there are no concessions. If I had played it better, I would have got it for nothing as an introductory offer. Apparently one can use OpalPay to pay. See: <https://transportnsw.info/tickets-opal/opal/opalpay> There is something quite Uberish about the technology. I wouldn't be a regular user without the app on a smart phone. Come on Jim, that's the way the world is going.

NSW Transport recently cancelled two suburban on demand services. The Keolis Downer ones are on trial.

Lack of demand for 'On Demand'

An article in the *Sydney Morning Herald* (15 May) reported that two further 'on demand' services will cease due to cost concerns and poor patronage. After starting about 18 months ago, a trial at Manly operated by Transdev, and another run by Hillsbus at Carlingford in the city's north west, will ceased from 24 May. Late last year trials at Punchbowl and Wetherill Park in Sydney's west also ended.

However, four on-demand pilot areas – on the northern beaches, the eastern suburbs, at Newcastle and Woy Woy on the Central Coast – have been extended for six months. Four others, including one at Macquarie Park in Sydney's north, also remain in operation.

The Independent Pricing and Regulatory Tribunal has warned that on-demand services "need to be carefully designed to ensure that high-cost, low-patronage fixed-route transport services are not simply replaced by even higher cost on-demand services".

On-demand services are significantly more expensive to operate than fixed-route buses. In work for the regulator, consultancy AECOM has calculated that the fixed costs for a new on-demand service can range from about 150 per cent to 180 per cent of those for a fixed-route service. There are also likely to be extra running costs such as fuel and driver expenses.

Rail, Tram and Bus Union divisional secretary David Babineau said the trials had been poorly thought out and there needed to be greater due diligence before they were introduced. "It needs to be done in a way to make them an integrated part of the transport network, and complimentary," he said. "Often these [on-demand buses] are competing against services that already exist such as those provided by community groups."

Despite the costs, the pricing regulator said there were situations when on-demand services represent "good value for money", such as in areas where demand for public transport was low, or the supply of traditional public transport was costly.

On-demand buses at Carlingford have carried an average of 576 passengers a month since they started in January last year, figures from Transport for NSW

show. Manly services have averaged 1348 passengers a month since August.

Service changes for the North West Metro

The following changes took effect from 26 May:

Hillsbus:

- 604 Parramatta-Castle Hill, altered to serve Hills Showground station.
- 605 Rouse Hill-North Kellyville, weekday service frequency increased from hourly to every 30 minutes.
- 617 Kellyville-Rouse Hill via Beaumont Hills, new service every 30 minutes in off peak when 617X City-Rouse Hill does not operate.
- 619 Rouse Hill-Macquarie Park, altered to serve Hills Showground station.
- 626 Pennant Hills-Dural, altered to Pennant Hills-Kellyville via Cherrybrook, Castle Hill and Hills Showground stations. Replaces T71 services between Caste Hill and Kellyville.
- 633 Pennant Hills-Castle Hill, altered to serve Cherrybrook station.
- 635 Beecroft-Castle Hill, altered to serve Coonara Av, Cherrybrook station and Anglicare Village.
- 643 Kellyville-Samantha Riley Drive, new peak service.
- 714 Seven Hills-Bella Vista, extended to Norwest station.
- M60 Parramatta-Hornsby, renumbered 600.
- M61 City-Castle Hill, renumbered 610X.
- T60 Parramatta-Castle Hill, altered to serve Norwest station.

Busways:

- 661 Riverstone-Windsor, renumbered 671.
- 662 Riverstone-Oakville, renumbered 741.
- 663 Windsor-Wiseman's Ferry, renumbered 672.
- 664 Windsor-Maraylya, renumbered 679.
- 740 Plumpton-Macquarie Park withdrawn.
- 745 provides services between Plumpton and Glenwood and connection at Bella Vista station with Metro services to Macquarie University and Macquarie Park.
- 742 Rouse Hill-Riverstone via Tallawong Road, altered to Rouse Hill-Marsden Park via Tallawong station and Carnarvon Road. Replaces Carnarvon Road variation of 757 service.
- 745 St Marys-Castle Hill, altered to St Marys-Norwest Private Hospital via Bella Vista station. 730 (previously T70) serves Glenwood-Castle Hill.
- 746 Riverstone-Rouse Hill via Box Hill, peak hour services 30 minutes between Rouse Hill and Box Hill.
- 747 Rouse Hill-Marsden Park via Boundary Road and Riverstone, altered to serve Tallawong station.
- 749 Blacktown-Marsden Park withdrawn, Richmond Road now served by 750 and 751.
- 751 Blacktown-Rouse Hill via Colebee, altered to serve Tallawong station.
- 757 Riverstone-Mt Druitt, all trips now run via Garfield Road West. Carnarvon Road variation now served by 742.
- T70 Blacktown-Castle Hill, renumbered 730, altered serves Hills Showground station.

- T71 Blacktown-Castle Hill, renumbered 731 and operates between Blacktown and Rouse Hill only. Kellyville to Castle Hill now served by 626.
- T72 Blacktown-Rouse Hill, renumbered 732, altered to serve Tallawong station.
- T74 Blacktown-Riverstone, renumbered 734.
- T75 Blacktown to Rouse Hill, renumbered 735.

Since route numbers 660 to 666 are now available it is expected that T60 to T66 will be renumbered 660 to 666 at a later time.

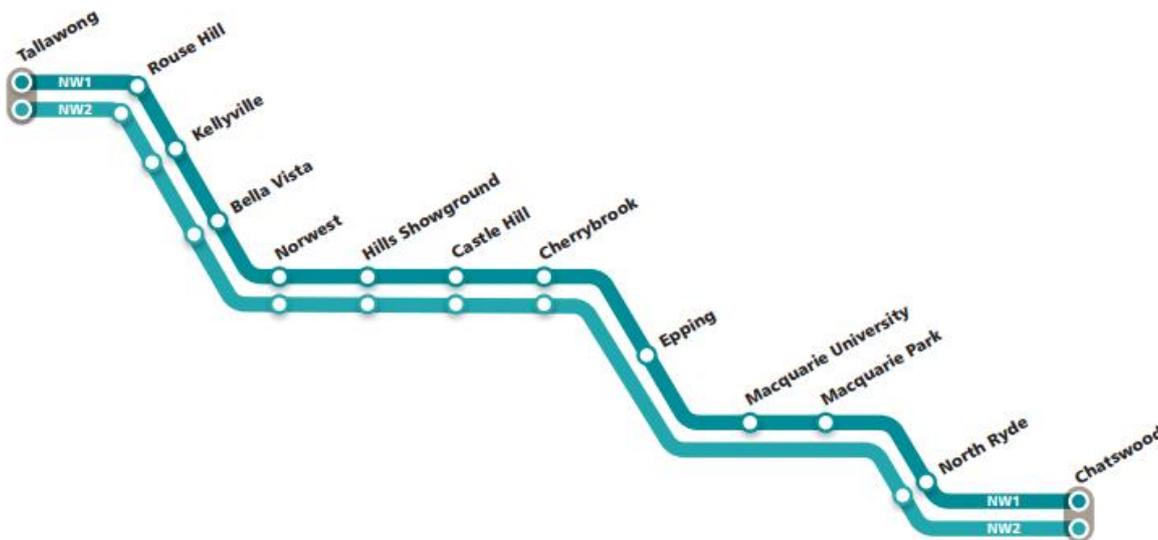
Bus replacement already on the Sydney North West Metro

Due to 'ongoing' works bus replacement services will operate in lieu of the new driverless trains on Sundays

to Wednesday evenings from around 2200 to end of service each night. This will be in place for at least the next six months. This makes a mockery of the Berejiklian government's claim that the new metro service was to be fully operational by Sunday 26 May.

Coined 'North West Night Bus' services will operate 'around every ten minutes' with two routes – an 'all stations' service between Chatswood and Tallawong and a 'limited stop' service between the two terminals (i.e. not servicing Epping, Macquarie University and Macquarie Park).

Route map of the North West Night Bus:



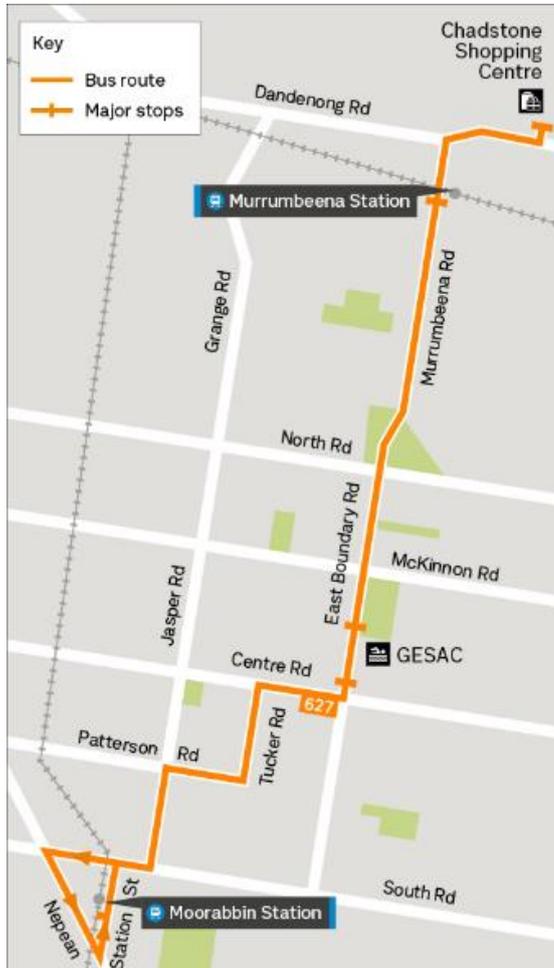
NSW TrainLink: Bus additions and deletions

This report is in the Rail news section.

VICTORIA

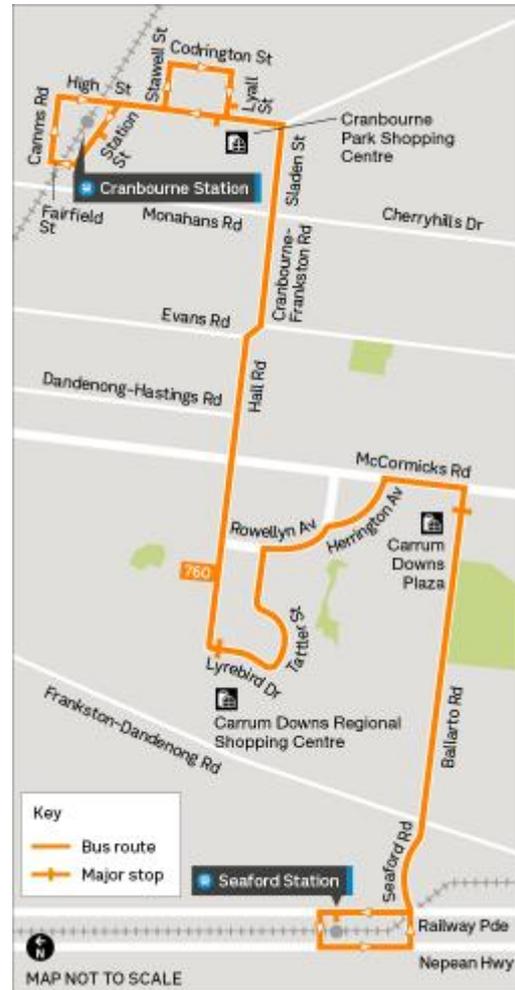
New bus route 627

From Sunday 16 June a new bus route from Moorabbin to Chadstone via Murrumbeena station will commence. Operating seven days a week the span of operation will be 0600 to 2200 weekdays, 0700 to 2130 Saturdays and 0800 to 2100 Sundays. Frequencies are 30 minutes during the peaks and weekdays and 40 minutes during the evenings and weekends. Ventura's South Oakleigh depot will operate the service.



New bus route 760

A new 'cross country' route will operate between Seaford and Cranbourne stations commencing from Sunday 16 June. The route will be in line with current PTV minimum standards with seven day a week operation. A one way trip takes around 35-40 minutes. The route will be operated by Ventura's Seaford depot.



Extract of new 627 timetable:

| Ventura | | PT> | | | | | | | | | | | | | | | | | |
|---|------|---|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|----|----|
| Route 627 Chadstone SC | | Service operates from 16.06.2019 until further notice | | | | | | | | | | | | | | | | | |
| | | Monday to Friday | | | | | | | | | | | | | | | | | |
| Wheelchair Accessible Services | | am | am | am | am | am | am | am | am | am | am | am | am | am | am | pm | pm | pm | pm |
| Morning (am) / Afternoon (pm) | | am | am | am | am | am | am | am | am | am | am | am | am | am | am | pm | pm | pm | pm |
| Moorabbin Station/Nepean Hwy (Moorabbin) | 5:45 | 6:15 | 6:43 | 7:14 | 7:41 | 8:12 | 8:39 | 9:12 | 9:43 | 10:13 | 10:43 | 11:13 | 11:43 | 12:13 | 12:43 | 1:13 | 1:43 | | |
| Braileford Rd/Jasper Rd (Bentleigh) | 5:46 | 6:16 | 6:44 | 7:15 | 7:42 | 8:13 | 8:40 | 9:13 | 9:44 | 10:14 | 10:44 | 11:14 | 11:44 | 12:14 | 12:44 | 1:14 | 1:44 | | |
| Uonga Rd/Jasper Rd (Bentleigh) | 5:46 | 6:16 | 6:45 | 7:16 | 7:43 | 8:14 | 8:41 | 9:14 | 9:45 | 10:15 | 10:45 | 11:15 | 11:45 | 12:15 | 12:45 | 1:15 | 1:45 | | |
| Halley Park/Jasper Rd (Bentleigh) | 5:47 | 6:17 | 6:45 | 7:16 | 7:44 | 8:15 | 8:42 | 9:14 | 9:45 | 10:15 | 10:45 | 11:15 | 11:45 | 12:15 | 12:45 | 1:15 | 1:45 | | |
| Wilma St/Patterson Rd (Bentleigh) | 5:48 | 6:18 | 6:46 | 7:17 | 7:44 | 8:15 | 8:43 | 9:15 | 9:46 | 10:16 | 10:46 | 11:16 | 11:46 | 12:16 | 12:46 | 1:16 | 1:46 | | |
| Hobart St/Patterson Rd (Bentleigh) | 5:48 | 6:18 | 6:47 | 7:18 | 7:45 | 8:16 | 8:44 | 9:16 | 9:47 | 10:17 | 10:47 | 11:17 | 11:47 | 12:17 | 12:47 | 1:17 | 1:47 | | |
| Montreal St/Patterson Rd (Bentleigh) | 5:49 | 6:19 | 6:47 | 7:18 | 7:46 | 8:17 | 8:44 | 9:16 | 9:47 | 10:17 | 10:47 | 11:17 | 11:47 | 12:17 | 12:47 | 1:17 | 1:47 | | |
| Tucker Rd/Patterson Rd (Bentleigh) | 5:49 | 6:19 | 6:48 | 7:19 | 7:46 | 8:17 | 8:45 | 9:17 | 9:48 | 10:18 | 10:48 | 11:18 | 11:48 | 12:18 | 12:48 | 1:18 | 1:48 | | |
| Purcell St/Tucker Rd (Bentleigh) | 5:50 | 6:20 | 6:49 | 7:20 | 7:47 | 8:18 | 8:46 | 9:18 | 9:49 | 10:19 | 10:49 | 11:19 | 11:49 | 12:19 | 12:49 | 1:19 | 1:49 | | |
| Lawson St/Tucker Rd (Bentleigh) | 5:51 | 6:21 | 6:49 | 7:20 | 7:48 | 8:19 | 8:47 | 9:18 | 9:49 | 10:19 | 10:49 | 11:19 | 11:49 | 12:19 | 12:49 | 1:19 | 1:49 | | |
| Centre Rd/Tucker Rd (Bentleigh) | 5:51 | 6:21 | 6:50 | 7:21 | 7:49 | 8:20 | 8:48 | 9:19 | 9:50 | 10:20 | 10:50 | 11:20 | 11:50 | 12:20 | 12:50 | 1:20 | 1:50 | | |
| Alexander St/Centre Rd (Bentleigh East) | 5:52 | 6:22 | 6:51 | 7:22 | 7:50 | 8:21 | 8:49 | 9:20 | 9:51 | 10:21 | 10:51 | 11:21 | 11:51 | 12:21 | 12:51 | 1:21 | 1:51 | | |
| Browns Rd/Centre Rd (Bentleigh East) | 5:53 | 6:23 | 6:52 | 7:23 | 7:51 | 8:22 | 8:50 | 9:21 | 9:52 | 10:22 | 10:52 | 11:22 | 11:52 | 12:22 | 12:52 | 1:22 | 1:52 | | |
| Centre Rd/East Boundary Rd (Bentleigh East) | 5:54 | 6:24 | 6:53 | 7:24 | 7:52 | 8:23 | 8:51 | 9:22 | 9:53 | 10:23 | 10:53 | 11:23 | 11:53 | 12:23 | 12:53 | 1:23 | 1:53 | | |
| Charles St/East Boundary Rd (Bentleigh East) | 5:54 | 6:24 | 6:53 | 7:24 | 7:52 | 8:23 | 8:51 | 9:22 | 9:53 | 10:23 | 10:53 | 11:23 | 11:53 | 12:23 | 12:53 | 1:23 | 1:53 | | |
| Glen Eira Sports and Aquatic Centre/East Boundary Rd (Bentleigh...) | 5:55 | 6:25 | 6:54 | 7:25 | 7:53 | 8:24 | 8:52 | 9:23 | 9:54 | 10:24 | 10:54 | 11:24 | 11:54 | 12:24 | 12:54 | 1:24 | 1:54 | | |
| Shrewsbury St/East Boundary Rd (Bentleigh East) | 5:56 | 6:26 | 6:55 | 7:26 | 7:54 | 8:25 | 8:53 | 9:24 | 9:55 | 10:25 | 10:55 | 11:25 | 11:55 | 12:25 | 12:55 | 1:25 | 1:55 | | |
| Bethwyn St/East Boundary Rd (Bentleigh East) | 5:57 | 6:27 | 6:56 | 7:27 | 7:55 | 8:26 | 8:54 | 9:25 | 9:56 | 10:26 | 10:56 | 11:26 | 11:56 | 12:26 | 12:56 | 1:26 | 1:56 | | |
| Molken St/East Boundary Rd (Bentleigh East) | 5:57 | 6:27 | 6:56 | 7:28 | 7:56 | 8:27 | 8:55 | 9:26 | 9:57 | 10:26 | 10:56 | 11:26 | 11:56 | 12:26 | 12:56 | 1:26 | 1:56 | | |
| Duncan Mackinnon Reserve/Murrumbena Rd (Bentleigh East) | 5:59 | 6:29 | 6:58 | 7:29 | 7:58 | 8:29 | 8:57 | 9:27 | 9:58 | 10:28 | 10:58 | 11:28 | 11:58 | 12:28 | 12:58 | 1:28 | 1:58 | | |
| St Patricks Primary School/Murrumbena Rd (Murrumbena) | 6:00 | 6:30 | 6:59 | 7:30 | 7:59 | 8:30 | 8:58 | 9:28 | 9:59 | 10:29 | 10:59 | 11:29 | 11:59 | 12:29 | 12:59 | 1:29 | 1:59 | | |
| Woomack Rd/Murrumbena Rd (Murrumbena) | 6:01 | 6:31 | 7:00 | 7:31 | 8:00 | 8:31 | 8:59 | 9:29 | 10:00 | 10:30 | 11:00 | 11:30 | 12:00 | 12:30 | 1:00 | 1:30 | 2:00 | | |
| Hethersett Gr/Murrumbena Rd (Murrumbena) | 6:02 | 6:32 | 7:01 | 7:32 | 8:01 | 8:32 | 9:00 | 9:30 | 10:01 | 10:31 | 11:01 | 11:31 | 12:01 | 12:31 | 1:01 | 1:31 | 2:01 | | |
| McLaurin Rd/Murrumbena Rd (Murrumbena) | 6:02 | 6:32 | 7:01 | 7:33 | 8:02 | 8:33 | 9:01 | 9:31 | 10:01 | 10:31 | 11:01 | 11:31 | 12:01 | 12:31 | 1:01 | 1:31 | 2:01 | | |
| Murrumbena Rd (Murrumbena) | 6:03 | 6:33 | 7:02 | 7:33 | 8:02 | 8:33 | 9:01 | 9:31 | 10:02 | 10:32 | 11:02 | 11:32 | 12:02 | 12:32 | 1:02 | 1:32 | 2:02 | | |
| Murrumbena Station/Murrumbena Rd (Murrumbena) | 6:04 | 6:34 | 7:03 | 7:35 | 8:04 | 8:35 | 9:03 | 9:33 | 10:03 | 10:33 | 11:03 | 11:33 | 12:03 | 12:33 | 1:03 | 1:33 | 2:03 | | |
| Blackwood St/Murrumbena Rd (Murrumbena) | 6:05 | 6:35 | 7:04 | 7:36 | 8:05 | 8:36 | 9:04 | 9:34 | 10:04 | 10:34 | 11:04 | 11:34 | 12:04 | 12:34 | 1:04 | 1:34 | 2:04 | | |
| Bruce St/Princes Hwy (Malvern East) | 6:06 | 6:37 | 7:06 | 7:38 | 8:07 | 8:38 | 9:06 | 9:36 | 10:06 | 10:36 | 11:06 | 11:36 | 12:06 | 12:36 | 1:06 | 1:36 | 2:06 | | |
| Sydare Ave/Dandenong Rd (Malvern East) | 6:07 | 6:38 | 7:07 | 7:39 | 8:08 | 8:39 | 9:07 | 9:37 | 10:07 | 10:37 | 11:07 | 11:37 | 12:07 | 12:37 | 1:07 | 1:37 | 2:07 | | |
| Alma St/Dandenong Rd (Malvern East) | 6:08 | 6:39 | 7:08 | 7:40 | 8:09 | 8:40 | 9:08 | 9:38 | 10:08 | 10:38 | 11:08 | 11:38 | 12:08 | 12:38 | 1:08 | 1:38 | 2:08 | | |
| Chadstone SC/Eastern Access Rd (Malvern East) | 6:11 | 6:42 | 7:11 | 7:43 | 8:12 | 8:43 | 9:11 | 9:41 | 10:11 | 10:41 | 11:11 | 11:41 | 12:11 | 12:41 | 1:11 | 1:41 | 2:11 | | |

Extract of new 760 timetable:

| Route 760 Cranbourne Station via Carrum Downs | | Public Holidays (1) | | | | | | | | | | | | | | | | | |
|--|------|---------------------|------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|-------|----|----|----|
| | | Saturday | | | | | | | | | | | | | | | | | |
| Wheelchair Accessible Services | | am | am | am | am | am | am | pm | pm | pm | pm |
| Morning (am) / Afternoon (pm) | | am | am | am | am | am | am | pm | pm | pm | pm |
| Seaford Station/Railway Pde (Seaford) | 7:00 | 7:55 | 8:55 | 9:55 | 10:55 | 11:55 | 12:55 | 1:55 | 2:57 | 3:57 | 4:57 | 5:57 | 6:57 | 7:57 | 9:01 | 10:01 | | | |
| Nepean Hwy (Seaford) | 7:00 | 7:55 | 8:55 | 9:55 | 10:55 | 11:55 | 12:55 | 1:55 | 2:57 | 3:57 | 4:57 | 5:57 | 6:57 | 7:57 | 9:01 | 10:01 | | | |
| Seaford Rd/Nepean Hwy (Seaford) | 7:01 | 7:56 | 8:56 | 9:56 | 10:56 | 11:56 | 12:56 | 1:56 | 2:58 | 3:58 | 4:58 | 5:58 | 6:58 | 7:58 | 9:02 | 10:02 | | | |
| Belvedere Park Primary School/Seaford Rd (Seaford) | 7:05 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 1:00 | 2:00 | 3:02 | 4:02 | 5:02 | 6:02 | 7:02 | 8:02 | 9:06 | 10:06 | | | |
| Prince Cres/Seaford Rd (Seaford) | 7:06 | 8:01 | 9:01 | 10:01 | 11:01 | 12:01 | 1:01 | 2:01 | 3:03 | 4:03 | 5:03 | 6:03 | 7:03 | 8:03 | 9:07 | 10:07 | | | |
| Bellevue Cres/Seaford Rd (Seaford) | 7:06 | 8:01 | 9:01 | 10:01 | 11:01 | 12:01 | 1:01 | 2:01 | 3:03 | 4:03 | 5:03 | 6:03 | 7:03 | 8:03 | 9:07 | 10:07 | | | |
| Mitre Cres/Ballarto Rd (Carrum Downs) | 7:07 | 8:02 | 9:02 | 10:02 | 11:02 | 12:02 | 1:02 | 2:02 | 3:04 | 4:04 | 5:04 | 6:04 | 7:04 | 8:04 | 9:08 | 10:08 | | | |
| Fermern Pl/Ballarto Rd (Carrum Downs) | 7:08 | 8:03 | 9:03 | 10:03 | 11:03 | 12:03 | 1:03 | 2:03 | 3:05 | 4:05 | 5:05 | 6:05 | 7:05 | 8:05 | 9:09 | 10:09 | | | |
| Lyrebird Dr/Ballarto Rd (Carrum Downs) | 7:09 | 8:04 | 9:04 | 10:04 | 11:04 | 12:04 | 1:04 | 2:04 | 3:06 | 4:06 | 5:06 | 6:06 | 7:06 | 8:06 | 9:10 | 10:10 | | | |
| Ballarto Rd (Carrum Downs) | 7:10 | 8:05 | 9:05 | 10:05 | 11:05 | 12:05 | 1:05 | 2:05 | 3:07 | 4:07 | 5:07 | 6:07 | 7:07 | 8:07 | 9:11 | 10:11 | | | |
| Ballarto Rd (Carrum Downs) | 7:10 | 8:05 | 9:05 | 10:05 | 11:05 | 12:05 | 1:05 | 2:05 | 3:07 | 4:07 | 5:07 | 6:07 | 7:07 | 8:07 | 9:11 | 10:11 | | | |
| Flinders College/Ballarto Rd (Carrum Downs) | 7:11 | 8:06 | 9:06 | 10:06 | 11:06 | 12:06 | 1:06 | 2:06 | 3:08 | 4:08 | 5:08 | 6:08 | 7:08 | 8:08 | 9:12 | 10:12 | | | |
| Flora Park Way/Ballarto Rd (Carrum Downs) | 7:12 | 8:07 | 9:07 | 10:07 | 11:07 | 12:07 | 1:07 | 2:07 | 3:09 | 4:09 | 5:09 | 6:09 | 7:09 | 8:09 | 9:13 | 10:13 | | | |
| Carrum Downs Plaza/McCormicks Rd (Carrum Downs) | 7:14 | 8:09 | 9:09 | 10:09 | 11:09 | 12:09 | 1:09 | 2:09 | 3:11 | 4:11 | 5:11 | 6:11 | 7:11 | 8:11 | 9:15 | 10:15 | | | |
| Gamble Rd/McCormicks Rd (Carrum Downs) | 7:14 | 8:09 | 9:09 | 10:09 | 11:09 | 12:09 | 1:09 | 2:09 | 3:11 | 4:11 | 5:11 | 6:11 | 7:11 | 8:11 | 9:15 | 10:15 | | | |
| Allied Dr/McCormicks Rd (Carrum Downs) | 7:15 | 8:10 | 9:10 | 10:10 | 11:10 | 12:10 | 1:10 | 2:10 | 3:12 | 4:12 | 5:12 | 6:12 | 7:12 | 8:12 | 9:16 | 10:16 | | | |
| Tyas Pl/Herrington Ave (Carrum Downs) | 7:16 | 8:11 | 9:11 | 10:11 | 11:11 | 12:11 | 1:11 | 2:11 | 3:13 | 4:13 | 5:13 | 6:13 | 7:13 | 8:13 | 9:17 | 10:17 | | | |
| Rowellyn Park Primary School/Rowellyn Ave (Carrum Downs) | 7:17 | 8:12 | 9:12 | 10:12 | 11:12 | 12:12 | 1:12 | 2:12 | 3:14 | 4:14 | 5:14 | 6:14 | 7:14 | 8:14 | 9:18 | 10:18 | | | |
| Rowellyn Park Primary School/Tattler St (Carrum Downs) | 7:17 | 8:12 | 9:12 | 10:12 | 11:12 | 12:12 | 1:12 | 2:12 | 3:14 | 4:14 | 5:14 | 6:14 | 7:14 | 8:14 | 9:18 | 10:18 | | | |
| Dean Ct/Tattler St (Carrum Downs) | 7:17 | 8:12 | 9:12 | 10:12 | 11:12 | 12:12 | 1:12 | 2:12 | 3:14 | 4:14 | 5:14 | 6:14 | 7:14 | 8:14 | 9:18 | 10:18 | | | |
| Pardalote Ave/Tattler St (Carrum Downs) | 7:18 | 8:13 | 9:13 | 10:13 | 11:13 | 12:13 | 1:13 | 2:13 | 3:15 | 4:15 | 5:15 | 6:15 | 7:15 | 8:15 | 9:19 | 10:19 | | | |
| Carrum Downs Regional SC/Lyrebird Dr (Carrum Downs) | 7:19 | 8:14 | 9:14 | 10:14 | 11:14 | 12:14 | 1:14 | 2:14 | 3:16 | 4:16 | 5:16 | 6:16 | 7:16 | 8:16 | 9:20 | 10:20 | | | |
| Hall Rd (Carrum Downs) | 7:19 | 8:14 | 9:14 | 10:14 | 11:14 | 12:14 | 1:14 | 2:14 | 3:16 | 4:16 | 5:16 | 6:16 | 7:16 | 8:16 | 9:20 | 10:20 | | | |
| Hall Rd (Carrum Downs) | 7:20 | 8:15 | 9:15 | 10:15 | 11:15 | 12:15 | 1:15 | 2:15 | 3:17 | 4:17 | 5:17 | 6:17 | 7:17 | 8:17 | 9:21 | 10:21 | | | |
| Atlas Dr/Hall Rd (Cranbourne West) | 7:27 | 8:22 | 9:22 | 10:22 | 11:22 | 12:22 | 1:22 | 2:22 | 3:24 | 4:24 | 5:24 | 6:24 | 7:24 | 8:24 | 9:28 | 10:28 | | | |
| Bradman Dr/Hall Rd (Cranbourne West) | 7:28 | 8:23 | 9:23 | 10:23 | 11:23 | 12:23 | 1:23 | 2:23 | 3:25 | 4:25 | 5:25 | 6:25 | 7:25 | 8:25 | 9:29 | 10:29 | | | |
| St Peters College/Cranbourne-Frankston Rd (Cranbourne) | 7:31 | 8:26 | 9:26 | 10:26 | 11:26 | 12:26 | 1:26 | 2:26 | 3:28 | 4:28 | 5:28 | 6:28 | 7:28 | 8:28 | 9:32 | 10:32 | | | |
| Elaine Ct/Staden St (Cranbourne) | 7:32 | 8:27 | 9:27 | 10:27 | 11:27 | 12:27 | 1:27 | 2:27 | 3:29 | 4:29 | 5:29 | 6:29 | 7:29 | 8:29 | 9:33 | 10:33 | | | |
| Fairbairn Rd/Staden St (Cranbourne) | 7:33 | 8:28 | 9:28 | 10:28 | 11:28 | 12:28 | 1:28 | 2:28 | 3:30 | 4:30 | 5:30 | 6:30 | 7:30 | 8:30 | 9:34 | 10:34 | | | |
| Lurline St/Staden St (Cranbourne) | 7:34 | 8:29 | 9:29 | 10:29 | 11:29 | 12:29 | 1:29 | 2:29 | 3:31 | 4:31 | 5:31 | | | | | | | | |

ODD SPOT

Canberra station on Singapore's Mass Rapid Transit's North-South line will open on 2 November.

About *Table Talk*

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