



**REPORT ON PROPOSAL BY YARRA CITY COUNCIL FOR HOLDEN STREET
KERBED MEDIAN CLOSURE AT THE INTERSECTION OF BRUNSWICK
STREET NORTH AND DEAN STREET, FITZROY NORTH**

1. PROPOSAL

The Department of Transport received a request from Yarra City Council to consider the trial installation of a kerbed median on Holden Street to prohibit right turns into and out of Dean Street and Brunswick Street North as part of a Local Area Place Making Plan (LAPM) for Fitzroy North.

The LAPM was adopted in March 2019 and aims to create a more livable area for the community through a placemaking approach. A traffic impact assessment report has been prepared by GTA consultants on behalf of the City of Yarra (Fileit reference 17958977).



Figure 1 Proposed changes to Holden Street at Brunswick Street North and Dean Street as per GTA Traffic Impact Assessment V171550

2. EXISTING CONDITIONS AND TRAFFIC PATTERNS

Holden Street is a two-way, two lane local road, approximately 12.5m between kerbs and has restricted parallel on-street parking on both sides of the road. An on-road bike lane is marked in each direction between the traffic and parking lanes.

Holden Street between Nicholson Street and St. Georges Road carries approximately 11,600 vehicles per day.

Two crashes are recorded at the intersection of Holden Street and Dean Street and Holden Street and Brunswick Street North. Both crashes are classified as other injury crashes.

The right turns on Holden Street to travel northbound at Rae Street and Pilkington Street are banned. The only available option to travel northbound from Holden Street is to use Dean Street.

The right turns on Holden Street to travel southbound are banned at Rae Street. The only available option to travel southbound from Holden Street is to Brunswick Street North.

Bus routes 250 and 251 operate along Holden Street between Nicholson Street and St. Georges Road.

Nicholson Street										Dean Street										St Georges Road									
					Rae Street										Pilkington Street														
363 ↑ ↓ 820										55 ↑ ↓ 54										510 ↑ ↓ 1282									
39 ↓										34 ↓										185 ↓									
560 →					370 → 528 →					327 → 293 →					28 → 26 → 319 → 345 →					14 → 379 → 892 → 11 → 38 →									
187 ↓					229 ↓										146 ↓														
← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗									
636 164 303 20					445 455 32 31					463					21 435 456 441					53 318 12									
← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗									
488 ↑ ↓ 944					63 ↑ ↓ 268										384 ↑ ↓ 1062														
Nicholson Street					Brunswick Street N					Holden Street					Byrne Street					St Georges Road									

Figure 2 Existing turning movements at the intersection along Holden Street in the AM peak as per GTA Traffic Impact Assessment V171550.

Nicholson Street										Dean Street										St Georges Road									
					Rae Street										Pilkington Street														
803 ↑ ↓ 564										147 ↑ ↓ 17										1108 ↑ ↓ 652									
117 ↓										102 ↓										346 ↓									
903 →					568 → 652 →					590 → 487 →					8 → 9 → 496 → 488 →					24 → 185 → 448 → 19 → 46 →									
278 ↓					162 ↓										118 ↓														
← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗									
537 162 628 44					402 381 133 98					274					45 265 310 267					75 756 3									
← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗					← ↑ ↖ ↗									
834 ↑ ↓ 795					232 ↑ ↓ 189										834 ↑ ↓ 593														
Nicholson Street					Brunswick Street N					Holden Street					Byrne Street					St Georges Road									

Figure 3 Existing turning movements at the intersection along Holden Street in the PM peak as per GTA Traffic Impact Assessment V171550.

3. EFFECT OF CLOSURE

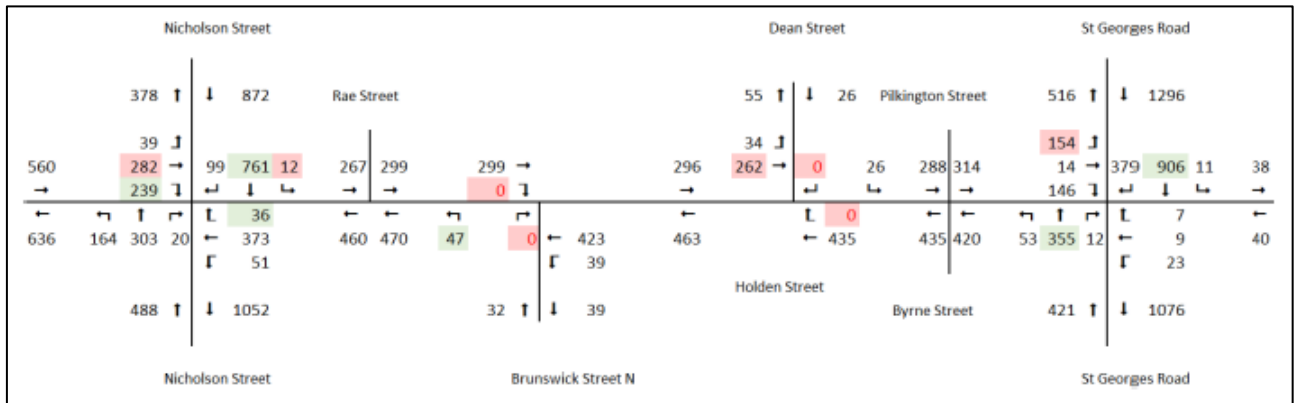


Figure 4 Proposed turning movements at the intersection along Holden Street in the AM peak as per GTA Traffic Impact Assessment V171550.

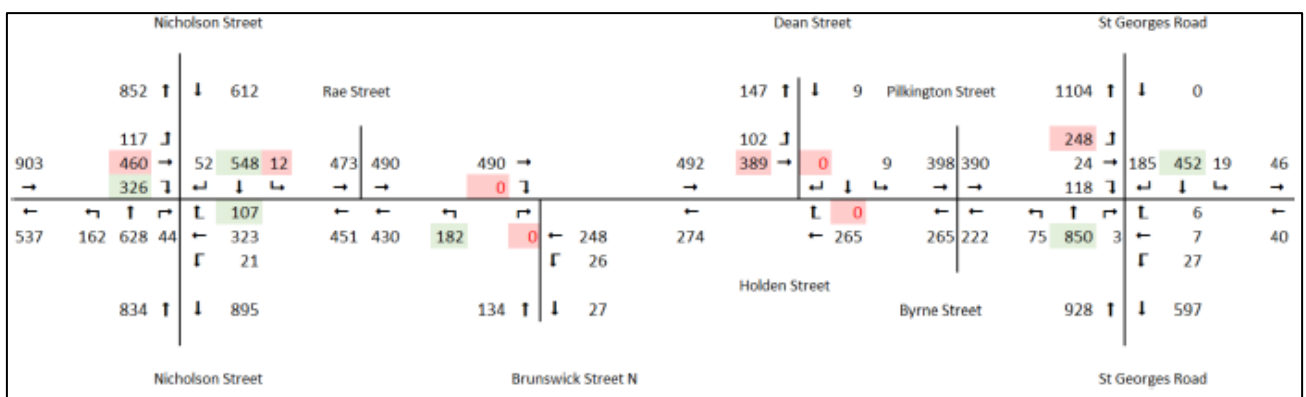


Figure 5 Proposed turning movements at the intersection along Holden Street in the PM peak as per GTA Traffic Impact Assessment V171550.

The volume of right turners from Holden Street to Nicholson Street is anticipated to increase by 49 vehicles during the PM peak when comparing Figures 3 and 5 above. The SIDRA analysis provided shows the Holden Street (east approach) queue length extending from 75.2m to 121.5m. This will lead to additional delays for general traffic and buses exiting Holden Street.

The SIDRA analysis provided by GTA Consultants shows that Brunswick Road (west approach) at the intersection with Nicholson Street and Holden Street is anticipated to have greater demand for right-turning vehicles after the proposed closure. During the PM Peak, the queue length for right turners from Brunswick Road to Nicholson Street is anticipated to extend to 122m. This will result in queues surpassing the effective storage length of the lane, resulting in vehicles encroaching into the eastbound through lane on Brunswick Road leading to a capacity reduction at the intersection.

The GTA report puts forward that 80% of vehicles using White St and Rae St will be redirected to the section of Nicholson St north of Brunswick Road which is configured as a shared tram and vehicle lane. As a result, the redistribution of additional vehicles will lead to an increase in tram delays, an undesirable by-product of the proposed closures.

For completeness it is important to note that this area has undergone change as part of the recent Route 96 tram upgrade works. Due to timing of these works it is understandable that GTA was unable to account for their impact, this may necessitate further work to understand implications of proposed changes.

4. IMPACT ON PUBLIC TRANSPORT & EMERGENCY VEHICLES

Trams along Nicholson Street will be impacted as outlined in the GTA Report due to increased vehicle volumes on the sections shared with trams.

The comparison of the before and after data in Figures 2 to 5 above also indicate the increase in volumes on St Georges Road. Noting the existing layout of St Georges Road requires trams to share the lane with general traffic, this increase in volume results in greater delays for trams.

The increased queues by the additional vehicle volumes on Holden Street correlate with an increase in delays for bus routes 250 and 251.

It is recommended that council consult emergency services to confirm that the closures will not detrimentally impact operation.

5. CONCLUSION

The Department of Transport does not support the trial installation of a kerbed median on Holden Street to prohibit right turns in and out of both Brunswick Street North and Dean Street due to proposed impacts on public transport and delays caused to for the surrounding arterial road network.

If you wish to discuss the matter further, please contact Manawa Herath - Senior Movement and Safety Engineer (Tel: 03 9313 1241), Department of Transport's Metro North West Region.

Yours sincerely,



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25 / 3 / 2020

