

**WEST GATE TUNNEL PROJECT ENVIRONMENT EFFECTS STATEMENT**  
**INQUIRY AND ADVISORY COMMITTEE**

**CITY OF MELBOURNE**

**TECHNICAL NOTE NUMBER:** #11

**DATE:** 15 September 2017

**LOCATION:** **Port, CityLink and City Connections**

**EES/MAP BOOK REFERENCE:** Technical Report A

**SUBJECT:** **Further response to PN60**

**NOTE:**

1. This Technical Note responds to Project Note 60 prepared by the Western Distributor Authority (**WDA**).
2. In a traffic conclave which occurred on 15 August 2017, Mr Hunt and Mr Kiriakidis agreed that additional information was required to properly assess Option 5 (see paragraph 2.1 of the conclave notes).
3. Option 5 is identified as: *"Two connections at each of Footscray Road and the extension of Wurundjeri Way but no city connection to Dynon Road"*.
4. The WDA submitted Project Note 60 in response to the agreed position between the experts in the traffic conclave. PN60 was submitted on 25 August 2017. This did not allow sufficient time for its contents to be properly assessed by the expert traffic witnesses engaged by the City of Melbourne before they were required to give evidence.
5. This Technical Note has been prepared with the assistance of Mr Steve Hunt.

**REQUEST:** The statutory approval process invites assessment and comment of the Environment Effects Statement and associated document as submitted by the WDA

**RESPONSE:** Further detailed analysis is attached.

**CORRESPONDENCE:** N/A

**ATTACHMENTS:** A further response to PN60 is attached.

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**STRATEGIC MODELLING OUTPUTS AND DAILY VOLUME IMPLICATIONS**

The plots for each of the above scenarios provided in Project Note 60 have been reviewed.

No commentary is provided within Project Note 60 on the daily volume outputs provided, or the implications on the assessment of the Options as provided in Table 3-5 of the EES Summary Report.

The following observations can be made as to those daily volumes, focusing on Option 1 (no city connections) and Option 5 (Connections as proposed but without the Dynon Road link).

**Option 1 – No City Connections**

- The elevated carriageway is modelled to carry 38,500 vpd with no city connections, 16,500 vpd less than the exhibited Project.
- With no city connections, Dynon Road, west of Dryburgh Street is modelled to carry 46,500 vpd, 2,000 vpd more than the NO Project Scenario and 10,500 vpd more than existing volumes. The modelled volume is 7,500 vpd less than Option 4.
- West of Citylink, volumes on Dynon Road in Option 1 are modelled at 38,000 vpd, considerably lower than volumes to the east.
- Footscray Road east of Citylink is modelled to carry 51,500 vpd, 2,000 vpd more than the No Project Scenario and 12,500 vpd more than existing volumes.
- West of Citylink, Footscray Road is modelled to carry 60,500 vpd, in Option 1, considerably higher than modelled volumes to the east of Citylink (the highest for any Option).
- Volumes on Dudley Street are modelled at 42,000 vpd, 2,000 vpd more than the No Project Scenario and 7,500 vpd more than existing.
- The overall increases to daily volumes on Footscray Road, Dynon Road and Dudley Street fall within the range of 2,000 to 6,500 vehicles per day for Option 1, compared with the No Project Scenario.
- Further information and review is required to determine the reasons for the relative volume changes on Footscray Road and Dynon Road either side of Citylink and the higher volumes on Footscray Road west.
- The higher volumes modelled on Footscray Road west of Citylink appear to be the main basis for the conclusion that Option 1 "does not meet project traffic performance assessment criteria" (Table 3-5 of EES Summary Report).

**Option 5 – Connections to Footscray Road and Wurundjeri Way, but not Dynon Road)**

- The elevated carriageway is modelled to carry 52,000 vpd with no city connections, 3,000 vpd less than the exhibited project.
- Without the Dynon Road connection, Dynon Road, west of Dryburgh Street is modelled to carry 41,000 vpd, 3,500 vpd less than the No Project Scenario but 5,000 vpd more than existing volumes. The modelled volume is 13,000 vpd less than Option 4.
- West of Citylink, volumes on Dynon Road in Option 5 are modelled at 41,000 vpd, which are similar to modelled volumes to the east.

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- The Wurundjeri Way extension is modelled to carry 16,500 vpd south of Dynon Road.
- Footscray Road east of Citylink is modelled to carry 53,500 vpd, 4,000 vpd more than the No Project Scenario, 5,500 vpd more than Option 4 and 14,500 vpd more than existing volumes.
- West of Citylink, Footscray Road is modelled to carry 49,000 vpd, in Option 5, 2,000 vpd less than the volumes modelled for Option 4.
- Volumes on Dudley Street are modelled at 53,500 vpd, 13,500 vpd more than the No Project Scenario and 7,500 vpd more than existing.
- The overall increases to daily volumes on Footscray Road, fall within the range of 2,000 to 5,500 vpd for Option 5, compared with the No Project Scenario, with Dudley Street modelled to an additional 7,500 vpd.

Based on the above information, it can be concluded that either Option 1 or Option 5 would provide for acceptable traffic outcomes in the West and North Melbourne areas, without compromising the stated objectives of the Project. There is nothing in PN60 that would establish that Option 1 or Option 5 would be unable to meet the project objectives for traffic.

It is noted that the additional information provided does not allow for the relative impacts of the operation of the M1 or volumes on the West Gate Bridge to be assessed for Option 5.

### **PEAK HOUR IMPACTS AND MICROSIMULATION MODELLING**

Project Note 60 provides an assessment of the AM peak operation of Footscray Road for Option 5, providing the results of microsimulation modelling centred on the Linfox / Simms Street / Footscray Road intersection.

Further, microsimulation videos have been provided which are said to demonstrate the operation along the Footscray Road corridor during the AM and PM peak periods if the Dynon Road connection is not provided (Option 5).

Project Note 60 states that Footscray Road at Shepherd Bridge increases by 300 vehicle movements per hour if the Dynon Road connection is not provided. It has been assumed that this is in comparison with comparable volumes modelled for Option 4, however not enough information is provided to draw this conclusion with certainty.

The projected "additional increase" for Option 5 in the context of existing volumes, the 2031 No Project Case and the 2031 Project Case have been reviewed to assist with an assessment as to the quantum of additional traffic anticipated to be generated along Footscray Road if the Dynon Road connection is not provided.

It is noted that eastbound peak directional volumes remain similar in magnitude to existing 2016 volumes in all scenarios, increasing only marginally in Option 5.

Project Note 60 also states that traffic volumes on the Footscray Road ramp from the Project are modelled as increasing by 500 vph without the Dynon Road connection, an increase of the modelled Project volumes of 350 vph in Option 4 (Figure 163 of Technical Report A).

The microsimulation modelling provided shows the operation of the Footscray Road corridor during the AM and PM peak periods, with each video running for 90 seconds.

It is unclear as to whether it is a random period over the peak hour or if it corresponds to absolute peak conditions.

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It is also understood that the microsimulation modelling has been undertaken assuming that an operational performance target of level of service D is maintained along Footscray Road, with signal timing and phasing presumably adjusted to achieve this target.

Certainly, the visual representation depicted in the video, shows minimal delays and queues in either the peak or non-peak direction along Footscray Road.

The consequent delays and queues on the Project off ramps reflected in the model are likely to be influenced by the assumptions adopted with respect the level of service at intersections along Footscray Road.

The projected queuing as modelled could potentially be reduced if the overall performance of the network was sought to be optimised.

It is noted that the only concern raised in Project Note 60 in relation to Option 5 relates to the projected peak hour operation, with flow breakdowns predicted related to the modelled volume of private vehicle commuter work trips to the central city and to North and West Melbourne not being adequately facilitated without the Dynon Road ramps.

The ability for these trips to be, at least in part, accommodated by increased public transport modal split, does not appear to have been explored.