
Date 5 April 2018
Submitted by John Richardson, Jacobs
Subject **Minta Farm PSP –Expert Witness Statement - Traffic and Transport**

This report was prepared by John Richardson from Jacobs, his details are as follows:

Qualifications

Bachelor of Geomatic Engineering (1st class honours), The University of Melbourne, 2000-2004

Bachelor of Science (Mathematics), The University of Melbourne, 2000-2004

Masters of Business Administration, University of the South Pacific 2014-2016

Experience

John has 15 years professional experience as a transport planner, modeller and project manager, with skills in, choice modelling, survey design, survey analysis, transport strategy development, stated preference and demand forecasting. He has worked as technical leader on projects that have encompassed road, public transport, heavy vehicles, motorcycle and aviation planning, model reviews, performance monitoring, road user pricing and economic evaluation.

John has a strong background in demand forecasting having worked on a range of studies including toll roads, airports, high speed rail, general public transport and ferries.

John has extensive Cube modelling experience in the UK and Australia. In the UK he calibrated employee surface access models for Heathrow and Stansted Airports. In Australia he has worked on many projects using the Victorian Integrated Transport Model (VITM) for government and private clients, including the development of Growth Area Corridor Models. He has previously been called upon as an expert witness for the Sunbury South and Mount Atkinson PSPs.

Areas of Expertise

- Strategic transport plans
- Choice modelling and model estimation
- VITM / Cube Voyager
- Demand forecasting

Reliance

The author has relied upon the modelling results in the following report:

- Minta Farm PSP, Peer Review and Traffic Impact Assessment (Jacobs on behalf of City of Casey, April 2018)

Other contributors

The report reference above was primarily prepared by Matthew De Marco, Jude Hart, Jamie Schulz and Emily White (all of Jacobs), they have the following qualifications and experience:



Matthew De Marco (Project Manager)

- Bachelor of Engineering (Civil) (Honours), Monash University, 2004
- Matthew has over thirteen years of experience in project managing the delivery of transport planning projects, traffic signal corridor reviews, traffic engineering assessments, traffic modelling projects, road safety assessments, urban development projects and liaising with clients and stakeholders.
- Matthew is fluent with SCATS and was previously part of VicRoads Traffic Signal Operations team responsible for the design, implementation and optimisation of congestion management and wayfinding strategies in Metropolitan Melbourne.

Jude Hart (Reviewer)

- Bachelor of Engineering (Civil) (Honours), Monash University, 2004
- Master of Transport (Honours), Monash University, 2015
- Jude has recently joined Jacobs with over thirteen years of experience in traffic engineering and transportation planning, in Australia, the United Kingdom, and the Middle East. He worked for the City of Casey as a transport planner from 2012-2014.
- Jude has worked on public and private sector projects ranging in a number of different transport fields, such as; traffic engineering, transport modelling, public transport and cycle planning, highway improvements and transportation planning advice for master-planning and highway improvement projects.

Jamie Schulz (contributing author)

- Bachelor of Engineering (Civil and Structural) with Bachelor of Economics (University of Adelaide), 2011
- Jamie Schulz is a transport planner with more than six years experience, he has worked on various traffic and pedestrian modelling simulation projects and traffic impact assessments across Victoria, South Australia and Northern Territory.

Emily White (contributing author)

- MSc Transportation Planning and Engineering, University of Southampton, 2011
- BSc (Hons) Geography, University of Southampton, 2008
- Emily is a Transport Planner with seven years experience in the UK and Australia. Since joining Jacobs, she has been primarily involved in the delivery of traffic and transportation projects for Local Authority clients, developing a broad knowledge of transportation planning and policy, road safety, assessment and appraisal. This has included, for example, feasibility and assessment studies, transport strategies and local major scheme business case development.

Scope of the report

Jacobs was commissioned by the City of Casey to undertake a critical review of documents related to the Minta Farm PSP, undertake new transport modelling to better understand the implications of development at Minta Farm on the broader network and to determine whether the 1,000 dwelling lot cap is an appropriate cap for the North–South Arterial to be constructed.

Reference to other documents

- Exhibited Minta Farm Precinct Structure Plan (VPA, October 2017)
- Traffic Engineering Assessment, Additional Traffic Modelling at Minta Farm PSP 11 (Traffix Group on behalf of VPA, September 2017)
- Minta Farm Precinct Structure Plan – Concept Road Design Report (Traffic Works Pty Ltd on behalf of VPA, October 2017)
- Minta Farm Berwick – S96A – Transport Impact Assessment (Onemilegrid on behalf of Stockland Development, October 2017)

- Strategic Transport Modelling Assessment (Ultimate Scenario) – McPherson, Croskell and Minta Farm Precincts (Cardno on behalf of VPA, August 2015)

Opinion of the expert

Following a review of related traffic and transport reports and the conduct of additional transport modelling, it is apparent that of more importance than early delivery of the North–South Arterial are upgrades to road network surrounding the proposed PSP area. The following is a list of development triggers that are considered appropriate for the delivery of transport infrastructure projects identified in the Proposed PSP:

- 1) O’Shea Road extension to the Beaconsfield Interchange, duplication of O’Shea Road from Clyde Road to the interchange and upgrade of the interchange are required prior to 500 lots being developed within Minta Farm – otherwise O’Shea Road / Soldiers Road intersection becomes unacceptably congested.
- 2) Duplicate Grices Road between Clyde Road and Viewgrand Drive (this is included as part of the Clyde North PSP) by the 500th lot within Minta Farm.
- 3) Provide additional capacity at the intersection of Grices Road and Soldiers Road by the 500th lot being developed within Minta Farm. This could include temporary upgrades to the existing roundabout or delivery of the North-South Arterial.
- 4) The 1000 lot cap on the North-South Arterial is appropriate, provided the above transport infrastructure is delivered. If O’Shea Road is not duplicated, the North-South Arterial should be implemented as soon as practical (nominally following the initial 231 lot development within Minta Farm) and development capped at 500 lots until duplication of O’Shea Road.
- 5) Considerably more road works beyond the above infrastructure improvements are required to cope with the full development.

The following assessment is made of traffic and transport related matters submitted to VPA:

- 6) Transport for Victoria suggested that the North-South Arterial should be delivered initially as 4-lanes rather than 2-lanes. The modelling undertaken suggests 2-lanes is appropriate at 2021 and instead prioritises the construction of the projects listed in points 1-3 above. However, no modelling has been undertaken that considers any years between 2021 and the full build out. It would be preferable for VPA to undertake additional modelling at interim scenarios (say 2026 and 2031) to determine if there would be efficiencies in delivering a 4-lane North-South Arterial early. This additional modelling could also be used to prioritise the roll out of arterial road upgrades in line with the expected growth within the south east for the interim years of 2026 and 2031.

The following changes are recommended to the Proposed PSP to improve the operation of the transport network within and surrounding Minta Farm:

- 7) The Amendment provides for bus-capable roads serving the vast majority of the PSP area. This however does not achieve the aim of improving public transport services in the area and conflicts with the South East Corridor Plan which identifies a PPTN and notes that PSPs will be responsible for planning local bus routes. The PSP should include details of indicative bus routes, bus stops and any form of on-road bus priority measures.
- 8) The PSP plans for an extensive pedestrian and cycle network across the precinct but cycle paths have not been planned in a consistent manner (mix of on-road and off-road), and

additional internal links are required. A more consistent and integrated network needs to be included in the PSP so that cycling can become a viable transport mode.

A number of inconsistencies were found in the transport modelling relied upon by VPA which should be addressed in any future modelling undertaken. The most important aspects relate to the Traffic Group report (September 2017):

- 9) Reductions applied to trip generation of 25% due to internal trip making and 19% due to non-private vehicle trips to be removed for interim scenarios.
- 10) Include modelling of scenarios without O'Shea Road duplication for comparison against those already modelled.
- 11) Confirm the inputs used to determine the layout of the O'Shea Road and North-South Arterial intersection.

Declaration

I have made all enquiries that I believe are desirable and appropriate and no matters of significant which I regard as relevant to my knowledge been withheld from the Panel.



John Richardson | Jacobs | Section Leader – Transport Planning | Asia Pacific, Southern Area | 452 Flinders Street, Melbourne | +61 3 8668 3521 | +61 439 492 285 | John.Richardson3@jacobs.com | www.Jacobs.com