STATEMENT TO PLANNING PANELS VICTORIA BY HENRY HUME TURNBULL, TRAFFIC ENGINEER

1 INTRODUCTION

I have been retained by Davejoy Pty Ltd (Pellicano Group of Companies) instructed by Planning and Property Partners Pty Ltd to undertake traffic engineering assessments and to provide an expert traffic engineering opinion in relation to the impact of Amendment C183 to the Greater Dandenong Planning Scheme on the existing M1 Industry Park located off Monash Drive in Dandenong South.

2 QUALIFICATIONS & EXPERIENCE

Appendix A contains a statement setting out my qualifications and experience, and the other matters raised by “Planning Panels Victoria – Planning Panels – Expert Evidence”.

I advise that I am a sessional member of Planning Panels Victoria, a position which I have held for the past 33 years. I declare that to the best of my knowledge:

- I am not currently appointed or soon to be appointed to any Panel or Advisory Committee with any of the members who have been appointed to consider this matter, and
- I have no known conflict of interest with any person or organisation that has made a submission and/or with anyone appearing at the hearing including the Planning Authority.

3 SUMMARY OF OPINIONS

See Conclusions/Recommendations section of this report.
AMENDMENT C183

Greater Dandenong Planning Scheme Amendment C183 in conjunction with Casey Planning Scheme Amendment C199 and Frankston Planning Scheme Amendment C99 proposes to apply a Public Acquisition Overlay – Schedule 1 (PAO1) to land required for the proposed upgrade of the Western Port Highway from an existing four lane highway to freeway standard, over a 12.2km long section between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road. This is referred to as the Western Port Highway (North) Upgrade Project. Insofar as the M1 Industry Park is concerned, road property access would ultimately be closed at the existing access at Monash Drive and at Bayliss Road.

Development of the freeway will provide for additional lanes (capacity) to serve the developing areas in Cranbourne West and Cranbourne South as well as having the significant function of supporting any upgrade to the Hasting Port facilities.

The Amendments also do the following to support the existing use of the Western Port Highway and its intersecting roads, and the proposed upgrade of the Highway:

- Rezones land in the ownership of VicRoads to Road Zone 1 (RDZ1).
- Deletes the Public Acquisition Overlay – Schedule 1 (PAO1) from land which has already been acquired by VicRoads.
- Amends part of the Public Acquisition Overlay – Schedule 2 (PAO2) along Hall Road near Western Port Highway (under the responsibility of the City of Frankston) to a PAO1 (under the responsibility of VicRoads).

The planning scheme maps specifically affected by the amendments are as follows:

- Map Nos 7, 10, 14, 7PAO, 10PAO and 14PAO in the Casey Planning Scheme.
- Map Nos 6, 3PAO and 6PAO in the Frankston Planning Scheme.
- Map Nos 9PAO and 12PAO in the Greater Dandenong Planning Scheme.

A map detailing the effects of the upgrade on surrounding land uses is shown in Figure 1.
Amendments C183 to the Greater Dandenong Planning Scheme
Proposed Western Port Highway Upgrade

Figure 1: Planning Scheme Amendment C183 – Land Use Impacts
5 DESCRIPTION OF ENVIRONS

5.1 Locality

The M1 Industry Park is located on the west side of the Western Port Highway, south of Abbotts Road, in Dandenong South as presented in the locality plan at Figure 2.

The M1 Industry Park includes many significant tenancies including NYK Logistics, BlueScope Lysaght, MiTek Aust. Ltd, Dair, TriMotive, a childcare centre, Arco Café Restaurant and Croc's Indoor Play Centre.

Monash Drive, a local road, runs between the Western Port Highway and Abbotts Road and provides the only access for the M1 Industry Park tenancies.

Access to Monash Drive from the Western Port Highway is restricted to left-in/left-out. A signalised intersection serves Monash Drive at Abbotts Road.
5.2 Land Use

The M1 Industry Park is located in the Commercial 2 Zone (C2Z) as shown in Figure 3. Surrounding land uses include:

- Residential development located to the south-east of the site,
- Commercial/warehouse development located to the north-west and east of the point of interest,
- The Cranbourne railway line adjacent to the site to the south-west.

Source: Planning Schemes Online (http://planningschemes.dpcd.vic.gov.au/)

Figure 3: Land Use Zoning
5.3 Broader Road Network

Remington Drive/Pound Road West

Remington Road/Pound Road West is a local collector road that extends from Abbotts Road to South Gippsland Highway. Currently, the Cranbourne railway line bisects this road, with the road terminating on either side of the railway line, as shown in Figure 4. However, in the ultimate scenario, the road will be linked by construction of a railway overpass. The construction of this overpass would inevitably ease existing congestion on Abbotts Road and improve the flow of traffic in the network. I understand this work to be far from imminent.

Figure 4: Remington Road/Pound Road West
Monash Drive

Monash Drive is a local road that extends approximately 1.25km from Abbotts Road to Western Port Highway as shown in Figure 5.

Monash Drive provides access to the M1 Industry Park from Western Port Highway via a left-in/left-out access to/from the northbound carriageway and from Abbotts Road via a signalised intersection with full turning movements permitted.

Figure 5: Monash Drive
Abbotts Road

Abbotts Road is a local collector road that extends in an east-west direction from South Gippsland Highway in the east to Frankston Dandenong Road in the west as shown in Figure 6. It provides critical links, including to the M1 and M2 Industry Parks (the latter being to the west of the Cranbourne railway line, south of Abbotts Road).

Abbotts Road is highly congested and there is a railway level crossing at the western boundary of the M1 Industry Park that causes further delays to traffic.

Figure 6: Abbotts Road
Bayliss Road

Bayliss Road is a local road that extends from Western Port Highway in the east to Taylors Road in the west as shown in Figure 7.

Bayliss Road, which is now northbound only beyond the Commercial Sands Rubbish Tip, is serving the M2 Industry Park via Taylors Road and National Drive.

Figure 7: Bayliss Road

6 BACKGROUND - VICROADS’ OPINION

VicRoads, in its letter dated 26th March, 2015, has stated its position as follows:

The existing access between Western Port Highway and Monash Drive cannot be readily modified to provide safe access under freeway conditions, due to the inadequate separation to the off-ramp to South Gippsland Highway. The provision of a significantly upgraded access in accordance with design standards, would be inconsistent with good practice to limit interchanges to arterial roads and strategic locations. Adequate alternative access can be provided to Monash Drive via Abbotts Road and South Gippsland Highway at the time of the closure of access to Western Port Highway. Some upgrade of Abbotts Road and South Gippsland Highway may need to be considered to adequately accommodate diverted traffic.
WHAT ARE THE RELEVANT IMPACTS OF CLOSING MONASH DRIVE AT WESTERN PORT HIGHWAY?

My office has undertaken a 7-day traffic volume count between Monday 27th April and Sunday the 3rd May, 2015. The count was carried out on Monash Drive and Bayliss Road\(^1\), which found traffic volumes as summarised in Table 1 below.

<table>
<thead>
<tr>
<th>Table 1: Traffic Volumes</th>
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<tr>
<td><strong>Road</strong></td>
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<td>Monash Drive</td>
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<td>Bayliss Road</td>
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VicRoads’ Transport Infrastructure Assessment (Final Report July 2014) states that “Monash Drive near WPH is expected to carry in the order of 1,000 veh/day. This volume is likely to increase as further development occurs in the M1 Industry Park.”\(^2\) I note that the recorded peak two-way volume of 1,854 vehicles per day is significantly higher than VicRoads’ estimate, and the M1 Industry Park is not fully developed.

The traffic count also revealed that a significant proportion of the traffic on Monash Drive has entered from Western Port Highway (approximately 70% of traffic). Specifically, the counts undertaken reveal that traffic volumes entering Monash Drive from Western Port Highway were particularly high with a peak hour volume of 327 vehicles recorded between 8am-9am.

Currently, traffic conditions along Abbotts Road are poor due to:

- The railway level crossing located between Monash Drive and National Drive; and
- The proposed rail overpass connecting Remington Drive and Pound Road West has not been constructed forcing traffic that would otherwise use this route to use Abbotts Road.

In addition to the redistribution of Monash Drive traffic onto Abbotts Road, the closure of Bayliss Road will also result in additional traffic being diverted to Abbotts Road.

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\(^1\) Bayliss Road located to the south of Monash Drive is also proposed to be closed as part of the upgrade of Western Port Highway to freeway conditions. Existing traffic on Bayliss Road will also rely upon Abbotts Road for access in the future.

\(^2\) Page 61
Separate to Table 1, the traffic volume count revealed that in the order of 130 vehicles use the Western Port Highway exit onto Bayliss Road between 8am and 9am. As noted above, there were 327 vehicles entering Monash Drive from Western Port Highway at the same time.

Therefore, the closure of both roads would likely incur an increase in traffic movements along Abbots Road exceeding 450 movements in the AM peak hour alone.

Good practice dictates that a development the size of M1 Industry Park, as was determined at the town planning approval stage, should have at least two access points. Consistent with a Road Safety Audit done in 2003 in the lead up to approval of the M1 Estate, VicRoads agreed as much.

By way of example, I note that there is a childcare centre located at the southern end of Monash Drive near the left-in/left-out access to Western Port Highway. The closure of the Western Port Highway access is likely to have a detrimental impact on this and other businesses as the closure is expected to result in increased travel times meaning that businesses become less convenient and alternative competitors may be chosen.

In my opinion, Abbots Road does not currently have the capacity to accommodate the additional traffic arising from the closure of Monash Drive.

The impact of the closure of Monash Drive could be mitigated if a range of compensating works were to take place, including completing the Remington Drive/Pound Road West railway overpass and an upgrade to both Abbots Road and South Gippsland Highway, to allow for the diverted traffic volume increase. I understand that neither of these initiatives is imminent.

8 ARE THERE ANY OPTIONS?

8.1 Exit from Monash Drive onto Western Port Highway

I have reviewed whether access to Western Port Highway could be retained as part of the proposed Upgrade Project. Having regard to the Austroads research report for Freeway Design Parameters for Fully Managed Operations the minimum distance between the nose of an on-ramp and the nose of an off-ramp is to be a minimum of 1.5km. I note that there are examples of existing interchanges that are less than the aforementioned distance apart, specifically on Eastlink in the vicinity of Caribbean Gardens.

I am of the opinion that while it would be physically possible to provide an exit from Monash Drive northbound onto Western Port Freeway, in this case there are two important considerations which mitigate against it, namely:-

- The level of exiting traffic is low while the future traffic leaving Western Port Freeway at South Gippsland Highway can be expected to be significant, and
- The alternative northbound travel path via Abbots Road/South Gippsland Highway is similar in travel distance.

Reliance on Abbots Road for all exiting traffic movements from the M1 Estate highlights the need to ensure the necessary upgrade works are undertaken prior to any closure of the access onto the Western Freeway.

8.2 Entry from Western Port Highway to Monash Drive

I have reviewed whether access from the Western Port Highway could be retained as part of the proposed Upgrade Project. Having reviewed the plans prepared by AECOM and having regard to current traffic engineering practice, I am of the opinion that there is no reason why the left-in access to Monash Drive from Western Port Highway could not be retained in the form of a freeway off-ramp.
I am of the opinion that the development of the M1 Industry Park would not have proceeded if access to Western Port Highway had not been granted, as a single access to Abbots Road would not have been consistent with good traffic engineering practice.

VicRoads Western Port Highway (North) Upgrade Transport Infrastructure Assessment (Final Report – July 2014) noted that the closure of Monash Drive is not consistent with the planning permit for the M1 Industry Park\(^3\). I was involved with a negotiated outcome with VicRoads in September 2003 and I note the VCAT Order (P3398/2002) for the M1 subdivision required the following permit conditions:

- **Access to be allowed between Western Port Highway and Monash Drive.**
- **No direct vehicle access between Western Port Highway and any allotment.**

However, VicRoads’ Final Report further states “Development of the industry park has proceeded on the basis of access being available between WPH and Monash Drive. WPH/Monash Drive provides a secondary access to the development, with the main access via Abbots Road/Monash Drive”.\(^4\) I believe this to be an inaccurate assessment of to the current arrangement. Counts undertaken on Tuesday 12\(^{th}\) May, 2015 indicate that majority of the access to Monash Drive is taken from Western Port Highway and the majority of exiting traffic from Monash Drive occurs to Abbots Road.

The VicRoads Report states ... “Current users of the WPH/Monash Drive intersection may experience longer travel times as a result of the closure. Such increases are expected to be longer for exiting vehicles rather than entering vehicles, particularly in the PM peak period when traffic using Abbots Road experiences some congestion”.\(^5\)

While I generally agree with the above statement concerning the impact of exiting traffic during the PM peak hour, I am of the opinion that VicRoads has severely underestimated the impact that closing the Monash Drive access will have on traffic conditions on Abbots Road during the AM peak hour.

With the closure of both Monash Drive and Bayliss Road, there would be an increase in excess of 450 vehicles in the AM peak hour in traffic exiting Western Port Highway onto Abbots Road. The resulting impact of the additional traffic would significantly affect traffic conditions on Abbots Road, which are already constrained.

The distance between the future Glasscocks Road on-ramp and the location of the Monash Drive off ramp is approximately 2km. There is therefore no issue in regard to the distance between interchanges. The inclusion of a freeway off-ramp to Monash Drive followed by a freeway off-ramp to South Gippsland Highway will not result in any road safety or weaving impacts.

My office has prepared a functional layout plan, provided at Appendix B, demonstrating that a single lane freeway off-ramp can satisfactorily be provided from Western Port Highway to Monash Drive, without any adverse impacts to the operation of the future freeway.

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\(^3\) Pages 1 and 18
\(^4\) Page 61
\(^5\) Page 61
9 CONCLUSIONS

Having inspected the site, undertaken traffic counts, reviewed relevant documentation and plans and undertaken traffic engineering assessments, I am of the opinion that:

- it would not have been good practice to have developed the M1 Industry Park with only a single access to Abbots Road,
- the proposed closure of the Monash Drive left-in/left-out intersection to Western Port Highway will have a detrimental impact on the M1 Industry Park,
- if either of the Monash Drive left-in or left-out movements to Western Port Highway were to be closed, a pre-condition of the closure should be the construction of the Remington Drive/Pound Road West railway overpass and improvements to the South Gippsland Highway/Abbotts Road intersection to ease congestion on Abbots Road,
- there is sufficient separation between the proposed Glasscocks Road interchange south of Monash Drive and the South Gippsland Highway interchange to provide an off-ramp at Monash Drive, and
- in the circumstances, there are reasonable grounds for Monash Drive to qualify as a “strategic location” and the left-in movement from Western Port Highway should be retained as part of the upgrade to freeway conditions.

10 DECLARATION

I have made all the inquiries that I believe are desirable and appropriate and there are no matters of significance which I regard as relevant which, to the best of my knowledge, have been withheld from the Panel.

HENRY H TURNBULL, RFD
B.E.(Civil), M.I.E.Aust., M.I.T.E., F.V.P.E.L.A.
13th May, 2015
Name
Henry Hume Turnbull - Traffix Group Pty Ltd

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VICTORIA     3146

Qualifications
My educational qualifications and membership of professional associations are as follows:-
- Bachelor of Civil Engineering, University of Melbourne
- Life Member, Institute of Transportation Engineers
- Member, Institution of Engineers, Australia
- Life Fellow, Victorian Planning & Environmental Law Association
I am a sessional member of Planning Panels Victoria.

Experience
I have approximately 38 years’ experience in Engineering including:
- ten years Country Roads Board of Victoria,
- two years with TTM Consulting, and
- twenty-six years with Turnbull Fenner Pty Ltd/Traffix Group Pty Ltd.

Areas of Expertise
I have substantial experience and expertise in major road design and construction, contract administration, road construction material and construction methods, development impact assessment, including traffic generation and parking generation characteristics, traffic management and general traffic engineering, road safety and transportation planning.

Expertise to Prepare this Assessment
My experience and expertise over the past 38 years as detailed above includes numerous traffic impact assessments of industrial and warehouse developments. I am therefore very well qualified in terms of being able to provide a detailed expert assessment in relation to Amendment C183 and the proposed Western Port Highway Upgrade.

Instructions
I have been retained by Pellicano Group of Companies, instructed by Planning and Property Partners Pt Ltd to undertake traffic engineering assessments and to provide an expert traffic engineering opinion in relation to Amendments C183 to the Greater Dandenong Planning Scheme which includes the Western Port Highway Upgrade Project.
Facts, Matters and Assumptions Relied Upon

- Amendment C183 material including explanatory report and proposed zoning maps
- VicRoads letter date 26th March, 2015
- VicRoads Western Port Highway (North) Upgrade - Transport and Infrastructure Assessment
- Traffic Counts and analysis conducted by Traffix Group for Bayliss Road and Monash Drive in Dandenong South
- Greater Dandenong Planning Scheme
- AECOM Western Port Highway Upgrade - South Gippsland Highway to Cranbourne Frankston Road
- Austroads Research Report – Freeway Design Parameters for Fully Managed Operations
- VicRoads Western Port Highway (North) Upgrade Transport Infrastructure Assessment (Final Report – July 2014)
- Site inspections
- Relevant experience

Identity of Persons Undertaking Work

Henry H Turnbull as per the evidence statement.

Daniel Milder (Traffic Engineer, Traffix Group) assisted with preparation of the evidence report.

Summary of Opinions

See Conclusions section of the evidence statement.