



Traffic Engineers and Transport Planners

Traffix Group Pty Ltd
ABN 32 100 481 570

Address
Suite 8, 431 Burke Road
Glen Iris Victoria 3146

Contact
Telephone 03 9822 2888
Facsimile 03 9822 7444
admin@traffixgroup.com.au
www.traffixgroup.com.au

Amendment C259 to the Greater Geelong Planning Scheme

Prepared for: City of Greater Geelong

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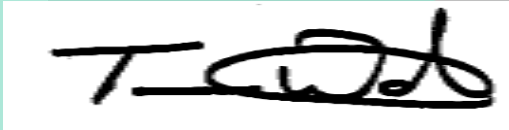
**STATEMENT TO PLANNING PANELS
VICTORIA BY JASON LEE WALSH, TRAFFIC
ENGINEER**

JASON WALSH
B.E. (Civil), B.Sc., V.P.E.L.A.

AMENDMENT C259 TO THE GREATER GEELONG PLANNING SCHEME

HORSESHOE BEND PRECINCT

Evidence Statement

Study Team:	Jason Walsh B.E. (Civil), B.SC., V.P.E.L.A.	Laura Procter B.A./B.E. (Civil) Hons., Master of Traffic, V.P.E.L.A.
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1 INTRODUCTION

I have been commissioned by City of Greater Geelong to review and provide a response to submissions received to Amendment C259, which relate to traffic engineering matters.

In the course of preparing this statement, I have inspected the subject land, reviewed Amendment C259 documentation, and assessed submissions raising traffic related matters associated with the Horseshoe Bend PSP and DCP.

My qualifications and experience to undertake the following assessment are set out in Appendix A.

2 BACKGROUND

The Greater Geelong Planning Scheme Amendment C259 proposes to introduce the Armstrong Creek Horseshoe Bend Precinct Structure Plan (HBSP) and Development Contributions Plan (HBDCP) into the Planning Scheme as Incorporated Documents.

The Horseshoe Bend Precinct (HBP) is one of seven precincts that make up the Armstrong Creek Urban Growth Area (ACUGA). The HBP is located to the east of Surf Coast Highway between the Marshall and East Employment precincts to the north and east, and Armstrong Creek Town Centre (ACTC) and Armstrong East Precinct to the south.

The HBP is approximately 638 hectares in gross area.

Amendment C259 proposes a number of changes to the Greater Geelong Planning Scheme to facilitate the future urban development of the HBP.

The amendment will:

- Insert Schedule 4 to the Urban Growth Zone (UGZ4) applying to land within the HBP.
- Insert Schedule 5 to the Development Contributions Plan Overlay (DCPO5) applying to land within the HBP.
- Amend the Schedule to the Commercial 1 Zone (C1Z) to specify a maximum combined leasable floor area (m²) for shop (other than restricted retail premises) for the North East Neighbourhood Activity Centre.
- Amend the Environmental Significance Overlay Schedule 1 (ESO1) as it applies to land within the HSBP.
- Amend the Vegetation Protection Overlay Schedule 1 (VPO1) as it applies to land within the HSBP.
- Amend the Floodway Overlay (FO) as it applies to land within the HBP.
- Amend the Land Subject to Inundation Overlay (LSIO) as it applies to land within the HBP.
- Apply the Public Acquisition Overlay Schedule (PAO3) to various sites within the HBP.
- Amend the Schedule to Clause 52.16 to include the Armstrong Creek Horseshoe Bend Native Vegetation Precinct Plan.
- Amend the Schedule to Clause 61.03 to reflect insertion of a new map within the scheme.
- Amend the Schedule to Clause 81.01 to incorporate the Armstrong Creek Horseshoe Bend Precinct Structure Plan, Armstrong Creek Horseshoe Bend Native Vegetation Precinct Plan and Armstrong Creek Horseshoe Bend Development Contributions Plan.

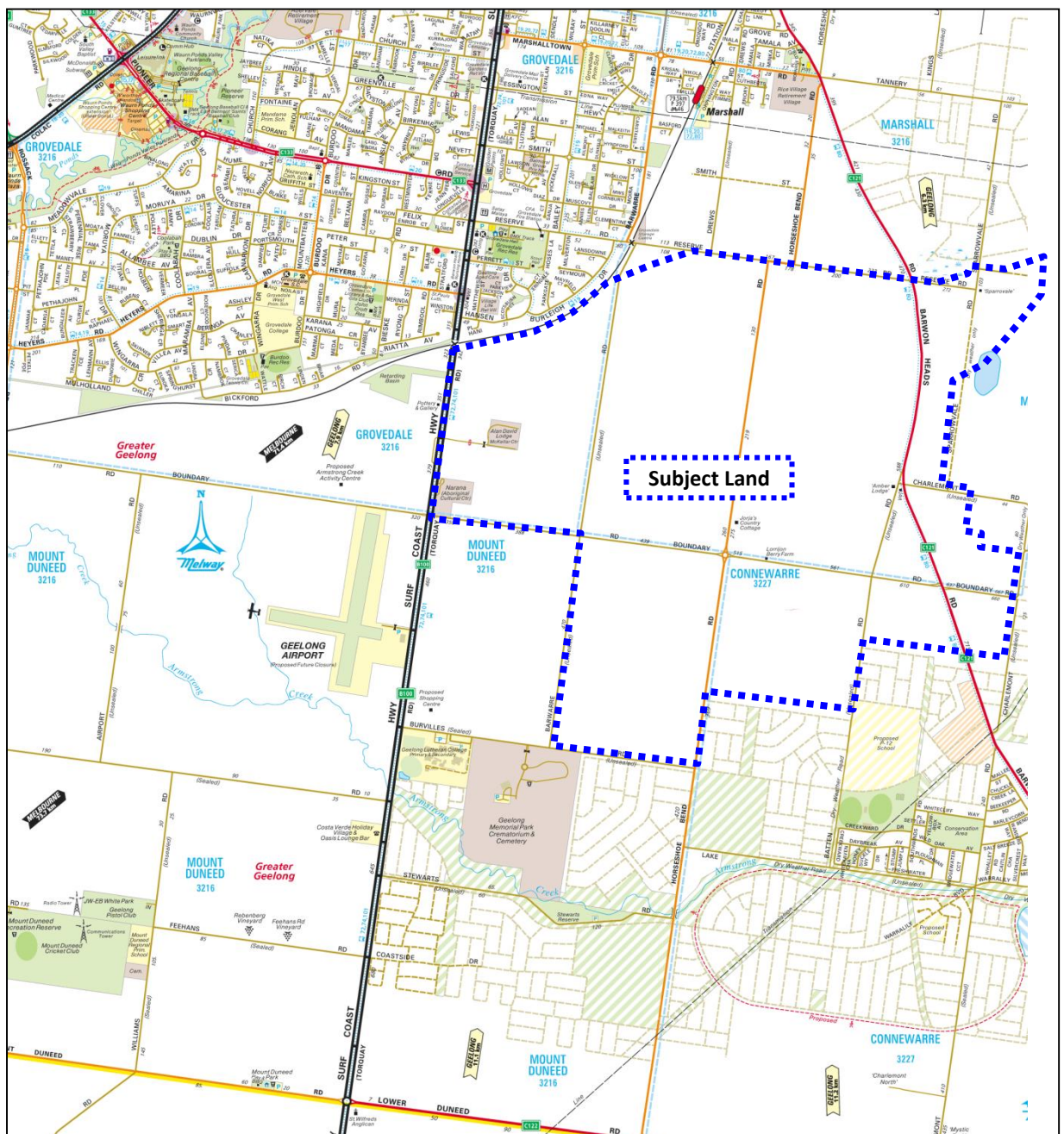
3 LOCALITY & EXISTING CONDITIONS

3.1 General

Reserve Road forms the northern boundary of the HBP, with the precinct extending as far south as Burvilles Road. The western boundary of the HBP extends to Surf Coast Highway before stepping back east to Barwarre Road along the line of Boundary Road and around the ACTC. The eastern boundary of the precinct loosely follows the 1:100 year flood line of the Barwon River / Reedy Lake / Lake Connewarre system to the east.

The site largely consists of rural residential properties, with notable uses within the precinct including the Narana Aboriginal Cultural Centre on the northeast corner of the Boundary Road and Surf Coast Highway intersection, and the Barwon Health Alan David Lodge aged care facility to the north on Surf Coast Highway.

The Horseshoe Bend Precinct and surrounding environs are shown in Figure 1.



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Figure 1: Locality Map

3.2 Existing Road Network

Surf Coast Highway is an arterial road linking Geelong to Torquay. Surf Coast Highway operates as a divided carriageway with two traffic lanes in each direction and sealed shoulders. The speed limit along the HBP frontage varies between 70km/h at the northern end in the vicinity of Reserve Road and increases to 100km/h south of Boundary Road.

Barwon Heads Road is an arterial road providing a connection between South Geelong and Barwon Heads / Ocean Grove. In the vicinity of the HBP, Barwon Heads Road operates as a single carriageway providing for a single lane of traffic in each direction, with sealed shoulders. There is a posted speed limit of 100km/h.

Horseshoe Bend Road is a local road, aligned in a north south direction, providing a connection between Marshall and Torquay. It bisects the HBP. Horseshoe Bend Road has a pavement width of approximately six (6) metres and provides for a single lane of traffic in each direction. There is a posted speed limit of 80km/h.

Boundary Road is a local road, aligned in an east west direction, connecting Mount Duneed and Charlemont. It bisects the HBP. Boundary Road provides for a single lane of traffic in each direction and has a posted speed limit that varies between 80km/h and 100km/h.

Burvilles Road is a local road providing a connection between Surf Coast Highway and Horseshoe Bend Road. Near to Surfcoast Highway, Burvilles Road is a sealed road with gravel / grass shoulders, whilst west of Barwarre Road, Burvilles Road has a gravel pavement.

4 PSP SECTION 4.6 – TRANSPORT & MOVEMENT

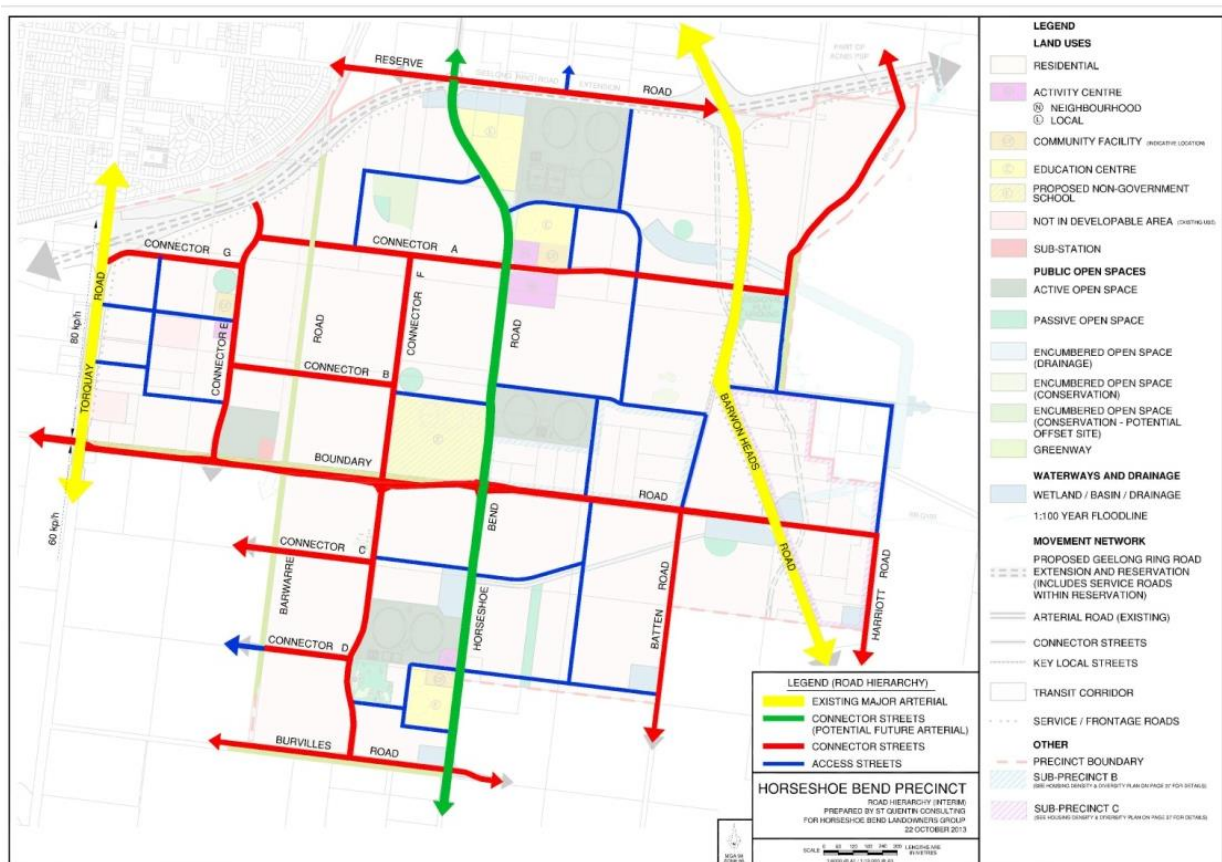
Section 4.6 of the PSP outlines the Transport and Movement Objectives, Implementation and Planning and Design Guidelines.

The objectives include to:

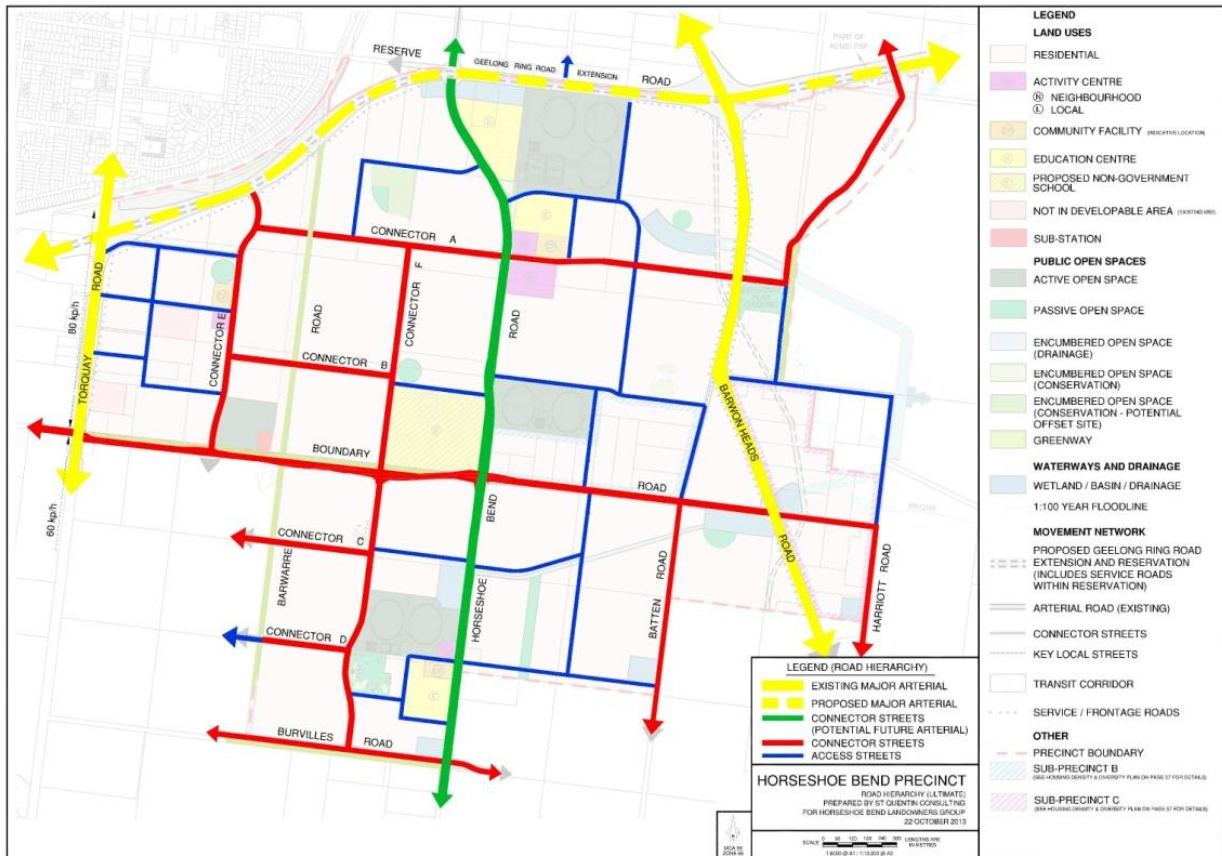
- Ensure the detailed planning of the HBP facilitates a broad range of transport modes that start with making attractive, accessible and convenient walking trips;
- Develop a safe and appropriate road network that services the HBP and beyond, that recognises the wider regional function of key existing highways and major roads but one that encourages trips by walking and cycling through the planning of movement links and mode choices.

Plan 10A and Plan 10B in the structure plan illustrate the road hierarchy in the interim and ultimate respectively, whilst Appendix 8 illustrates the road cross sections.

Plan 10A and Plan 10B are provided below.



Plan 10A: Interim Road Hierarchy



Plan 10B: Ultimate Road Hierarchy

The Planning and Design Guidelines highlight:

Connector streets (including any culverts and all related infrastructure) must be constructed progressively by development proponents as part of the of the subdivision works.

Where connector streets are identified with an interim and ultimate cross section, the intent is for the developer proponents to construct the interim arrangements, and the relevant road authority will construct the ultimate arrangements upon demand.

I am instructed that this approach is consistent with the other Armstrong Creek Precinct Structure Plans.

5 DEVELOPMENT CONTRIBUTIONS PLAN

The DCP has been developed to support the funding of infrastructure in the Horseshoe Bend Precinct.

Figure 2 and Figure 3 within the DCP identify the land, and road and intersection items to be funded via the DCP.

In relation to roads and intersections, the DCP is premised on the strategy of funding the land acquisition associated with the ultimate cross section for the primary collector roads in the precinct, comprising Horseshoe Bend Road, Boundary Road (between Surfcoast Highway and Horseshoe Bend Road, and Burvilles Road (between Barwarre Road and Horseshoe Bend Road). The nomination of these roads for land funding has been influenced by the incorporation of the 'greenways'.

Where signalised intersections are proposed on primary collector or arterial roads, the infrastructure is proposed to be partially or fully funded through the DCP. Appendix C of the DCP includes conceptual plans illustrating the proposed intersection works for those items included in the DCP.

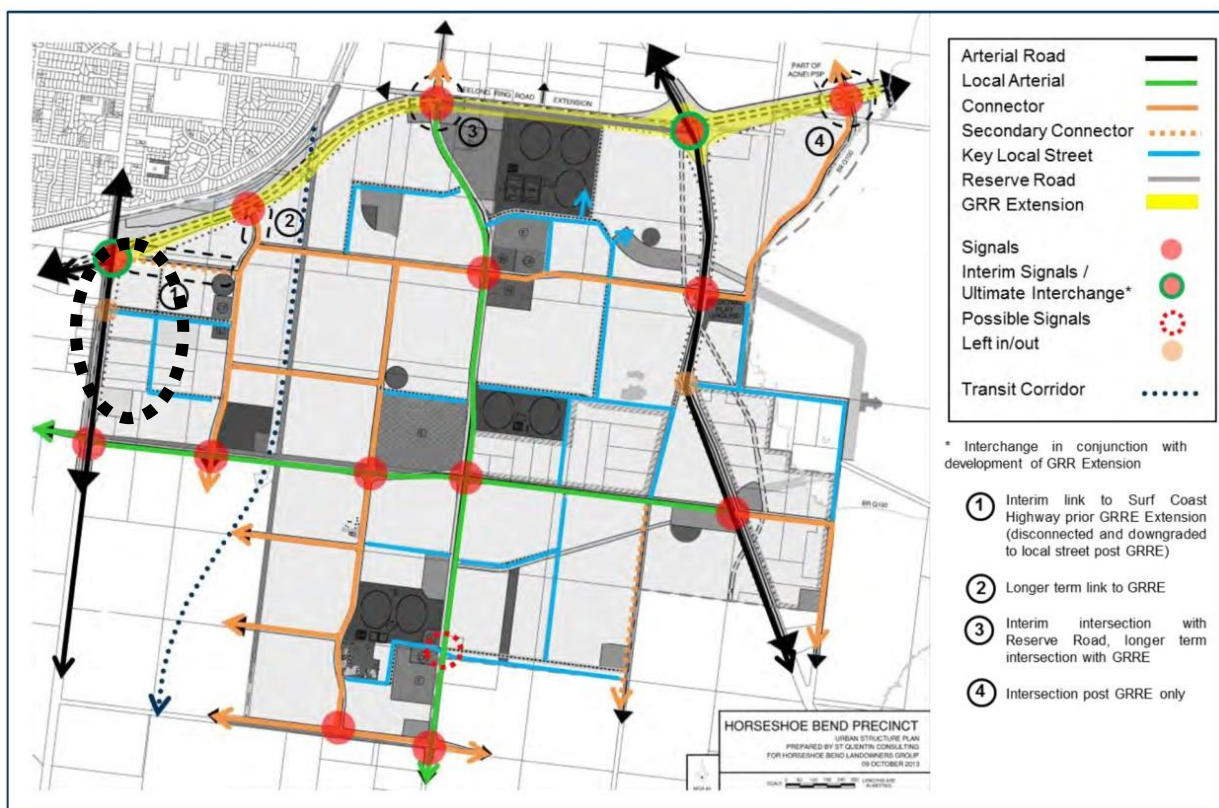
6 TRAFFIC REVIEW OF PSP AND DCP

I have reviewed the Horseshoe Bend PSP and DCP, as well as the supporting documentation relevant to traffic, most notably the Cardno 'Armstrong Creek Horseshoe Bend Precinct Traffic Impact Assessment' dated 10th October, 2013.

The adopted road hierarchy is a typical grid system, and in my opinion is based on sound engineering principles and will provide for a logical and navigable network that will allow convenient and direct access to the arterial road network.

In relation to road items, the DCP applies a consistent strategy to the funding of land for roads and construction of intersections.

In my review, I have identified that there is a discrepancy between the Road Hierarchy plans presented in the PSP, being Plan 10A 'Road Hierarchy (Interim)' and Plan 10B 'Road Hierarchy (Ultimate)', and Cardno Figure 5-2 'Horseshoe Bend PSP Road Network'. The Cardno hierarchy plan follows.



Cardno Road Hierarchy Plan

Specifically, the proposed road network in the north-west corner of the precinct, in the area fronting Torquay Road differs between the Cardno recommendations and the PSP (see the circled area). The PSP plans show a connection to Torquay Road with Connector G, as well as two (2) other local access streets, whereas the Cardno plan illustrates the Connector G connection to be removed in the 'ultimate' scenario, and only a single other local road connection.

In relation to this discrepancy, I am instructed the hierarchy and road network layout proposed by the Cardno plan is to be adopted. This will include a single local access street connection to Torquay Road (in a left-in/left-out arrangement) and the Connector G link to Torquay Road to be truncated in the future and converted to an internal connection to a frontage road or similar.

I also recommend amendment of Figure X: Boundary Road, Horseshoe Bend Road to Barwon Heads Road Cross Section (Interim), and Figure Z1: Boundary Road, Horseshoe Bend Road to Barwon Heads Road Cross Section (Ultimate) to allow for a more logical upgrade from interim to ultimate.

It appears from the current plans that both kerbs will need to be reconstructed in the ultimate arrangement. A simple translation of the interim road pavement by one metre to the south will provide a consistent five (5) metre verge on the south side and allow retention of the southern kerb when upgrading the road.

7 SUBMISSIONS

I have read the submissions and provide the following summary and response to traffic items.

Submission	Issue	Response
4, 5, 6, 8	<p>The new road along the north boundary of the Horseshoe Bend Precinct should be identified either as the Armstrong Creek East West Link Road or as Baanip Boulevard, rather than Geelong Ring Road Extension.</p> <p>All plans and documents, which reference the road as the Geelong Ring Road Extension, should be amended.</p>	Noted.
10, 30-36	<p>Boundary Road Duplication</p> <ul style="list-style-type: none"> - Amendment C259 should be changed to include the cost of constructing the proposed duplicated Boundary Road as a DCP item, with the cost of this infrastructure project charged in accordance with projected share of usage. <p>Boundary Road Cross Section</p> <ul style="list-style-type: none"> - The PSP should be amended to remove the requirement for provision that Boundary Road be a four lane road east of Horseshoe Bend Road. <p>Transit Corridor</p> <ul style="list-style-type: none"> - A Public Acquisition Overlay should be applied to secure land for the Transit Corridor (DBP Item DI_LA_08). It is inequitable for the State to fund land acquisition for a rail corridor outside of the Armstrong Creek Growth Area, yet within the Growth Area seek to opportunistically fund the acquisition of land required for regional/sub-regional infrastructure from homebuyers in the area through a DCP. 	<p>Boundary Road Duplication</p> <ul style="list-style-type: none"> - The cross section for Boundary Road is generally consistent with other collector roads in the HBP, all of which are proposed to be constructed by the respective land owners / developers. <p>Boundary Road Cross Section</p> <ul style="list-style-type: none"> - The interim arrangements for this section of Boundary Road contemplate a traffic and parking lane in each direction, which is satisfactory for the projected traffic volumes. The ultimate cross section essentially converts the parking lanes to traffic lanes through a widening of the road pavement by two (2) metres. Arguably the interim road reservation could be in the order of one metre less, however I am of the view the inclusion of an additional metre now is sound strategic planning to preserve the opportunity to provide for the ultimate arrangement if it is ever needed. <p>Transit Corridor</p> <ul style="list-style-type: none"> - The inclusion of the land acquisition for the corridor is a question more logically answered by the strategic planner / land economist, and I understand the Panel formed a view on this matter in the ACTC hearing. However, the transit corridor is much like a road reservation, and it is not unusual in DCPs for the PSP to fund the acquisition of land for a future arterial road.

Submission	Issue	Response
17	<p>Boundary Road Cross Section</p> <ul style="list-style-type: none"> - The PSP should be amended to remove the requirement for provision that Boundary Road be a four lane road east of Horseshoe Bend Road. <p>Transit Corridor</p> <ul style="list-style-type: none"> - Consistent with the treatment of the provision of the Geelong Ring Road Extension the State Government should apply a Public Acquisition Overlay to this land. This corridor will eventually extend well beyond the HBP through to Torquay or further and it is inequitable for the State to fund the land acquisition for a rail corridor external to the HBP yet within the precinct seek to opportunistically fund the acquisition of this public asset via a DCP that will impact on homebuyers in the area. <p>Geelong Ring Road Costs</p> <ul style="list-style-type: none"> - Land acquisition and costs associated with the Geelong Ring Road works should be removed from the DCP and funded by Public Transport Victoria. It is inappropriate that the State fund all costs associated with the Geelong Ring Road external to the Armstrong Creek Growth Area yet within the ACGA look to opportunistically fund these costs via a DCP. 	<p>Boundary Road Cross Section</p> <ul style="list-style-type: none"> - See earlier response <p>Transit Corridor</p> <ul style="list-style-type: none"> - See earlier response <p>Geelong Ring Road Costs</p> <ul style="list-style-type: none"> - The Geelong Ring Road costs related to the DCP are limited to a small area of land acquisition to the east of Barwon Heads Road, and the costs of two signalised intersections. The signals provide direct access to the HBP and inarguably a nexus exists for the signals.
19. 282-400 Horseshoe Bend Road	<ol style="list-style-type: none"> 1. Strongly oppose the proposed Barwarre Road and Boundary Road Greenway proposals abutting its land, and strongly supports the retention of Barwarre and Boundary Roads as local roads. 5. DCP intersection DI_RD_09 should be adjusted to only include the provision of signals at an estimated cost of \$500,000 so that it is consistent with the treatment of similar sub-arterial and connector street intersections in the DCP. 	<p>There is a need for the inclusion of higher order roads in the precinct to disperse traffic to the arterial road network, and the road hierarchy as proposed delivers that opportunity.</p> <p>The inclusion of both signals and civil works is consistent with other connector road intersections along Horseshoe Bend Road.</p>
20. 332 Torquay Road	<p>Submission seeks to relocate the proposed Geelong Ring Road extension to a position much further away from the railway line crossing Surf Coast Highway closer towards Torquay.</p>	<p>The Geelong Ring Road extension reservation has been established to the west of Surfcoast Highway, and logically it extends in an easterly direction from this point.</p>
27.	<p>The submission queries the Batten Road Cross Section, and the difference between the cross section in the Armstrong Creek East Precinct and the Horseshoe Bend Precinct.</p>	<p>The cross section for Batten Road contemplates a traffic and parking lane in each direction, which is appropriate for the proposed function of Batten Road within the HBP.</p>

Submission	Issue	Response
<p>38. Horseshoe Bend Landowners Group Submission</p>	<p>4. The transit corridor land acquisition should be removed from the DCP and instead PTV should seek to acquire the land from their own resources and apply a PAO to manage that process through a separate Amendment.</p> <p>7. The PSP should be amended to remove the recently introduced requirement for the provision that Boundary Road be a four lane road east of Horseshoe Bend Road.</p> <p>8. The intersection of Surf Coast Highway and Boundary Road is incorrectly scoped in the DCP which will lead to a shortfall in costs to be financed outside the DCP.</p> <p>9. Seeking refinement to the PSP Road Cross Sections to make it clear the extent of the interim cross sections for Horseshoe Bend Road, Boundary Road and Burvilles Road which are required to be constructed by the abutting developer. The present extent of works shown on the interim cross sections are excessive and are opposed.</p>	<p>See earlier response.</p> <p>See earlier response.</p> <p>The proposed cross sections for these roads are typical of connector streets.</p>
<p>DTPLI Submission</p>		
<p>18. Department of Transport, Planning & Local Infrastructure</p>	<p>Transit Corridor</p> <p>It is unclear from the plan if the main east-west connector is planned to be grade separated. In the event of ultimate provision of heavy rail, the transit corridor would be elevated at this location. By lowering the road by only 4-5 metres it would be possible to build a road-under-rail grade separation relatively cost effectively. Land use planning should therefore allow for ramping of the road to go under the transit corridor and the PSP land budget should be reflected to amend this.</p>	<p>I am instructed that Council has been in discussions with the DTPLI and a number of the items raised have been clarified.</p> <p>This item has been discussed and can be resolved in detailed design.</p>

Submission	Issue	Response
	<p>Barwon Heads Road Pedestrian Crossings</p> <p>The plan appears to include long stretches of Barwon Heads Road without controlled pedestrian crossings, namely:</p> <ul style="list-style-type: none"> - 1.0km between Boundary Road and the East West Connector Road - 0.8km between Boundary Road and Burvilles Road - 0.7km between East-West Connector Road and Reserve Road <p>These sections will require mid-block bus stops, and without associated protected pedestrian crossings, they only provide accessibility to bus travel in one direction. As a first priority, a protected pedestrian crossing should be planned at or near the intersection point for Charlemont Road, Batten Road and Barwon Heads Road. Options for protected pedestrian crossings in other sections should be considered, with provision for funding in the Development Contributions Plan.</p>	<p>VicRoads typically applies warrants when considering the inclusion of pedestrian operated signals (PoS). The warrants suggest that a PoS can be considered when the number of pedestrians crossing within 20 metres of the proposed site exceeds 100 in any one hour.</p> <p>Pedestrian volumes in these sections of Barwon Heads Road will not approach this volume.</p>

Submission	Issue	Response
	<p>Cycling and Walking</p> <ul style="list-style-type: none"> - Pg 57: While the principle of prioritising cyclists over traffic on the proposed dedicated off-road bike trail along Boundary Road is supported, the proposed intersection design shown is not supported on safety grounds. A concept design RSA is recommended to determine the most appropriate treatment to achieve intersection priority for cyclists. - Appendix 8 cross sections: The cross sections for Boundary Road and Burvilles Road include 3.0m wide off-road shared paths. To safely achieve the objective of cyclists travelling at speeds greater than 20km/h, these paths should be signed and marked for cyclists only. If pedestrians connections are proposed from abutting properties on the north side of Boundary Road or the south side of Burvilles Road, separated footpaths should also be provided. - Pg 61, Plan 11: An off-road shared path is proposed for the ultimate Reserve Road cross section. It is recommended that this off-road shared path be provided in the interim and be shown on Figure J and Plan 11. The DCP should be amended to reflect this. Plan 11 indicates that off-road shared paths are proposed along Barwarre Road and Connector E, however these paths are shown disconnected from the shared path along the Bellarine Link. It is recommended that the plan be amended to show these connections. - Figure Z1 Boundary Road Ultimate Cross Section Barwon Heads Road to Horseshoe Bend Road: The 1.0m verge between the shared path and traffic lane is too narrow for road furniture such as signs and bus shelters and would not allow space for bus bays. 	<p>This can be undertaken at the planning application stage.</p> <p>The Austroads Guidelines specify a minimum shared path width ranging from 2.5 to 3.0 metres depending on the type of path. The cross sections of Burvilles Road and Boundary Road have illustrated a 3 metre shared path, which satisfies the minimum width.</p> <p>The path appears to be located in land to the north of the PSP and in the area that is to be acquired by the relevant road authority. In this regard, it should not be required in the interim.</p> <p>Plan 11 illustrates off-road connections to the north for both Barwarre Road and Connector Road E.</p> <p>The cross section could be amended to translate the shared path one metre to the north (in both the interim and ultimate) if considered necessary.</p>
<p>39. VicRoads</p>	<p>PSP #1. Page 13, Plan 3 Urban Structure Plan</p> <ul style="list-style-type: none"> - The use of service/frontage roads to manage access to Surfcoast Highway, Barwon Heads Road and ACEWLR is strongly supported. - As noted in Item No. 10 below, access streets should be shown intersecting with the frontage road rather than Surfcoast Highway. - Connector G may need to be further south to enable an interim connection to Baanip Blvd. VicRoads is reviewing this. 	<p>I am instructed Council and the land owners group have had discussions with VicRoads since the initial submission and a number of the items have been addressed.</p> <p>Noted.</p> <p>I understand that VicRoads has consented to the inclusion of a single access street connection to Surfcoast Highway, restricted to left-in / left-out.</p> <p>Cardno has prepared a plan on this item, which I understand has addressed VicRoads enquiry.</p>

Submission	Issue	Response
	<p>PSP #4. Page 24, 4.1.1 Fifth dot point refers to access control of arterial roads by service or frontage roads. The preference would be to use frontage roads because these result in less conflict between through and local traffic movement. It is requested that the option of a “service road” be removed at this point and elsewhere in the document.</p>	<p>I am of the view that there should be sufficient flexibility to allow for either a service road or a frontage road, and the merits of which measure is adopted can be addressed at the planning application stage.</p>
	<p>PSP #6. Page 59/60, Plans 10A/B Road Hierarchy Plans - The Road Hierarchy Plans (Interim & Ultimate) show four intersections on Torquay Road between the railway line and Boundary Road (including two proposed access streets and the access to Alan David Lodge). These intersections should be formed with the future frontage road rather than directly with Torquay Road. Plans 10A and 10B should be altered/annotated to make this clearer.</p>	<p>See earlier response, where I understand VicRoads has consented to the inclusion of a single local access street connection, restricted to left-in / left-out.</p>
	<p>PSP #7. Page 60, Plan 10B Connector G is shown as an access street on Plan 10B, but is still shown as intersecting with Torquay Road. It is understood that this intersection will be removed in the ultimate (i.e. when ACEWLR is built). Plan 10B should be altered to show this.</p>	<p>Agree – The Hierarchy Plan should be clearer in establishing that Connector G will not ultimately connect to the Surfcoast Highway.</p>
	<p>PSP #8. Page 60, Plan 10B The Connector E intersection with ACEWLR may be too close to the ultimate Torquay Road ramps. This will require further investigation.</p>	<p>Noted.</p>
	<p>PSP #9. Page 59/60, Plan 10A/B The access street intersection with Barwon Heads Road (between Connector A and Boundary Road) should be left turn in/left turn out only. The plan should be annotated to indicate this.</p>	<p>Subject to the other roads being available for access, this item is agreed.</p>
	<p>PSP #10. Page 61 & 117, Plan 11 App 8 Walking/Cycling Link Plan The Walking/Cycling Link Plan shows an off-road shared trail (2.5m) just east of Torquay Road. The Surfcoast Highway Typical Cross Section (Figure M in Appendix 8) which is among the supporting documents does not show the shared trail. This cross section should be altered accordingly.</p>	<p>Agreed.</p>

Submission	Issue	Response
	<p>DCP #2. Page 19, Section DI_RD_1 Geelong Ring Road 4C (Baanip Boulevard)/Surfcoast Highway/Connector G Intersection – DI_RD_1</p> <p>This concept intersection layout (Drawing CG111786 T13 P4)) does not accord with the actual layout of the Baanip Boulevard approach as it is being currently constructed. Therefore the cost estimate used in the DCP may underestimate the actual cost of the work. The concept layout and the cost estimate should be reviewed.</p>	<p>Noted.</p>
	<p>DCP #3. Page 21, DI_RD_3 Reserve Road/Barwon Heads Road intersection construction</p> <p>The project cost shown on page 21 is \$1,664,382. However, the project cost for this intersection shown in the Road Engineering Cost supporting documentation is \$3,328,764. The reason for the cost difference may need to be clarified.</p>	<p>Noted.</p>

8 CONCLUSIONS

Having visited the site, perused relevant documents, and undertaken an assessment of the traffic conditions, it is my opinion that:-

- a) The adopted road hierarchy is a typical grid system and is based on sound engineering principles and will provide for a logical and navigable network that will allow convenient and direct access to the arterial road network.
- b) The DCP has employed a sound and consistent strategy for the inclusion of land acquisition for roads and intersection funding.
- c) Subject to minor amendments outlined in the body of the report, there are no traffic grounds that should prohibit approval of the Amendment.

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.

A handwritten signature in black ink, appearing to read 'J. Walsh'.

JASON WALSH
DIRECTOR
TRAFFIX GROUP
2 June 2014

Name

Jason Walsh - Director, Traffix Group Pty Ltd

Address

Suite 8, 431 Burke Road
GLEN IRIS
VICTORIA 3146

Qualifications

- My educational qualifications and membership of professional associations are as follows:-
- Bachelor of Civil Engineering, Monash University
- Bachelor of Science, Monash University
- Member, Victorian Planning & Environmental Law Association

Experience

- I have approximately 19 years experience in Traffic Engineering including,
- 1995-2000 at Turnbull Fenner (now Traffix Group), including short term placements at the cities of Bayside and Whittlesea,
- 2000-2011 at Grogan Richards Pty Ltd (now Cardno),
- 2011-present at Traffix Group.

Areas of Expertise

- Car parking and Traffic.
- Traffic advice and assessment of land uses and development proposals to planning authorities, government agencies, corporations and developers (including major residential, retail, food and drink, commercial, industrial, institutional and mixed use projects.
- Preparation and presentation of evidence before VCAT and Panels.

Expertise to Prepare this Assessment

My experience and expertise over the past 19 years, including involvement with varied forms of developments, qualifies me to comment on the traffic implications of the proposed Planning Scheme Amendment.

Instructions

I was retained by City of Greater Geelong in May 2014 to undertake a traffic engineering assessment and prepare an evidence statement in relation to Amendment C259 to the Greater Geelong Planning Scheme.

Facts, Matters and Assumptions Relied Upon

- Greater Geelong Planning Scheme Amendment C259 Exhibition Documents.
- Armstrong Creek Horseshoe Bend Precinct Structure Plan (Version 11, November 2013)
- Armstrong Creek Horseshoe Bend Development Contributions Plan (Version 1.1, November 2013)
- Armstrong Creek Horseshoe Bend Precinct, Traffic Impact Assessment, prepared by Cardno dated 10th October, 2013.
- Submissions.
- Site inspection, and
- Relevant experience.

Documents Taken into Account

See above.

Identity of Persons Undertaking Work

Jason Walsh as per the evidence statement.

Laura Procter (Senior Traffic Engineer, Traffix Group) assisted with preparation of the evidence statement.

Summary of Opinions

See Conclusions section of the evidence statement.