Melton Planning Scheme Amendment C147 Evidence Statement

24 November 2016

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1. EXPERT PROVIDER

Name: Daniel Gregor

Address: 71 Queens Road, Melbourne Vic 3004

Professional qualifications:

- Bachelor of Civil Engineering, 2001 Swinburne University of Technology, Melbourne,
- Bachelor of Business, 2001, Swinburne University of Technology, Melbourne and
- Currently undertaking Master of Traffic, Monash University, Melbourne.

Professional experience:

- SMEC (2016-present) - Team Leader Consulting & Advisory,
- GHD (2007-2016) - Manager Integrated Transport,
- Traffix Group (2002-2006) - Senior Traffic Engineer, and
- Shire of Yarra Ranges (1999-2001) - Undergraduate Traffic Engineer.

Areas of expertise:

- Integrated Planning Transport
- Traffic Engineering – modelling, design, data management,
- Management of complex traffic data collection and related strategies,
- Development and performance of feasibility studies,
- Development and review of Transport masterplans,
- Consideration of matters related to freight infrastructure, and
- Road safety – issues identification, mitigation development, post implementation evaluation.

Expertise to prepare this report:

My training and experience including my involvement in the analysis, assessment and design development of many major residential and commercial projects has equipped me to provide advice on the matters under consideration.

Instructions which define the scope of this report:

I have been engaged on 22 Novemeber 2016 by Norton Rose Fulbright on behalf of Moremac Property Group Pty Ltd to express my expert opinion as to certain traffic engineering implications of the proposed Melton Planning Scheme Amendment C147.

Identity of persons undertaking the work:

Daniel Gregor (Lead), Team Leader – Consulting and Advisory Services, SMEC Australia
Phillip Ridgeway, Senior Associate Transport Engineer, SMEC Australia
Christina Emmitt – Senior Transport Engineer, SMEC Australia

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

2. POINTS OF REVIEW

This statement has been prepared in response to a request from Norton Rose Fulbright, acting for the developer of the Deanside residential development within the Kororoit PSP.
This report specifically relates to the Road Network Plan (Plan 8) contained within the Kororoit PSP which was publically exhibited in June 2016, and provides a response to several traffic related issues which have been raised by the developer.
The issues addressed in the report below include the following:

- Suitability of the proposed East-West road cross sections in the north west area of the PSP (shown as LA2 in the PSP);
- Commentary on the proposed cross section for the Deanside Southern Access Track;
- Commentary on the number and location of pedestrian bridges shown on the exhibited PSP.

2.1 Proposed east-west road connections

Issue:
Is it appropriate for the cross section of two east-west roads located north and south of the retarding basin connecting Deanside Drive to the North South connector to be changed to Local Access 1 (16m) cross section rather than the designated Local Access 2 (20m) cross section? Refer to Figure 1.

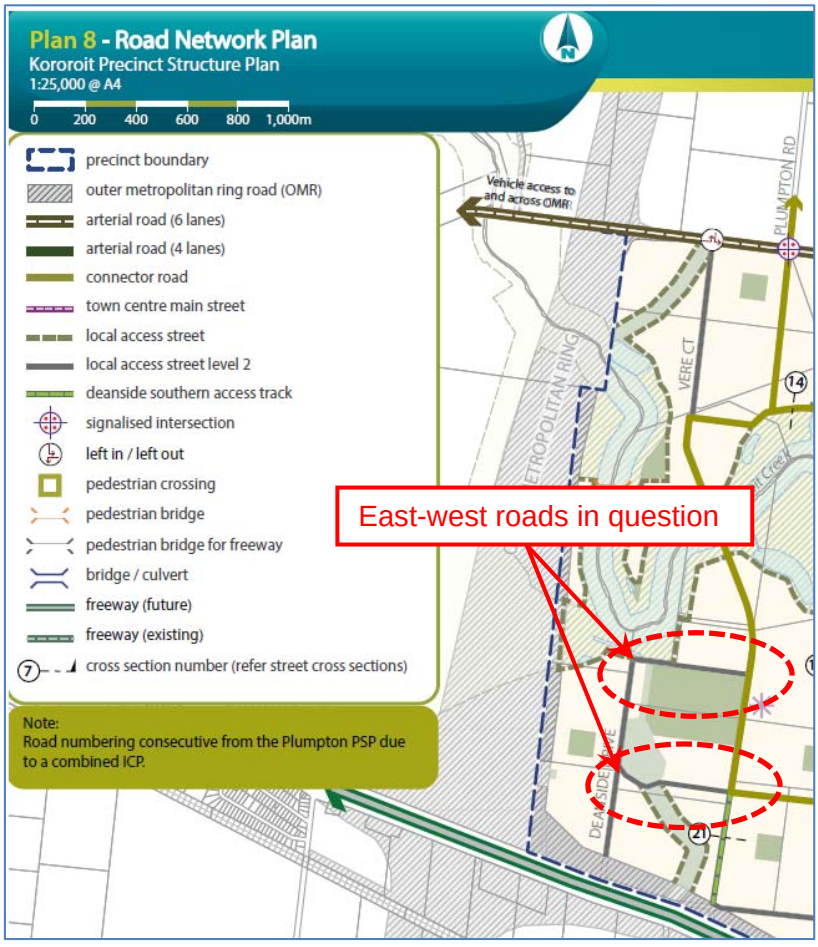


Figure 1: MPA Plan 8 - image extract

Opinion:
A review of the south-west quadrant of the precinct indicates an approximate lot yield of 700 lots, with the residents of those lots expected to use the two roadways in question.
Based on a traffic generation rate of 10 vehicle trips / household / day the resulting daily generated volume of 7000 trips can be expected in this precinct. The expected generated traffic volumes are consistent with microsimulation traffic modelling undertaken by Jacobs in the preparation of the Kororoit / Plumpton precinct structure plan. That modelling was presented in the "Plumpton and Kororoit – Update to Traffic Modelling Report (Jacobs), June 2016".

Based on the expected urban design in this area, the contributing catchments for each road has been determined, and the expected traffic volumes for the east-west roads are shown in figure 2.

This indicates that the east-west road to the north of the Active Open space will carry approximately 890 vehicles per day (vpd), and the more southern east-west road will carry 3740 vpd.

The VPA Engineering Standards, Part C- Engineering Design Ch 10.6 – Standard Cross Sections indicates a Local Access 1 (LA1) is expected to service 1000 to 2000 vehicle movements per day while a Local Access 2 (LA2) is expected to service 2000 to 3000 vehicle movements per day.

On that basis, I am of the opinion that the cross section of the southern east-west road should not be reduced to a classification lower than a LA2 road.

There is potential to reduce the northern east-west road to LA1, perhaps with the addition of indented parking on the southern side given the proximity of the roadway to the open space. Notwithstanding my opinion I understand that an agreement has been reached between the developer and VPA to provide a roadway consistent with a LA2 cross section to the northern east-west road.

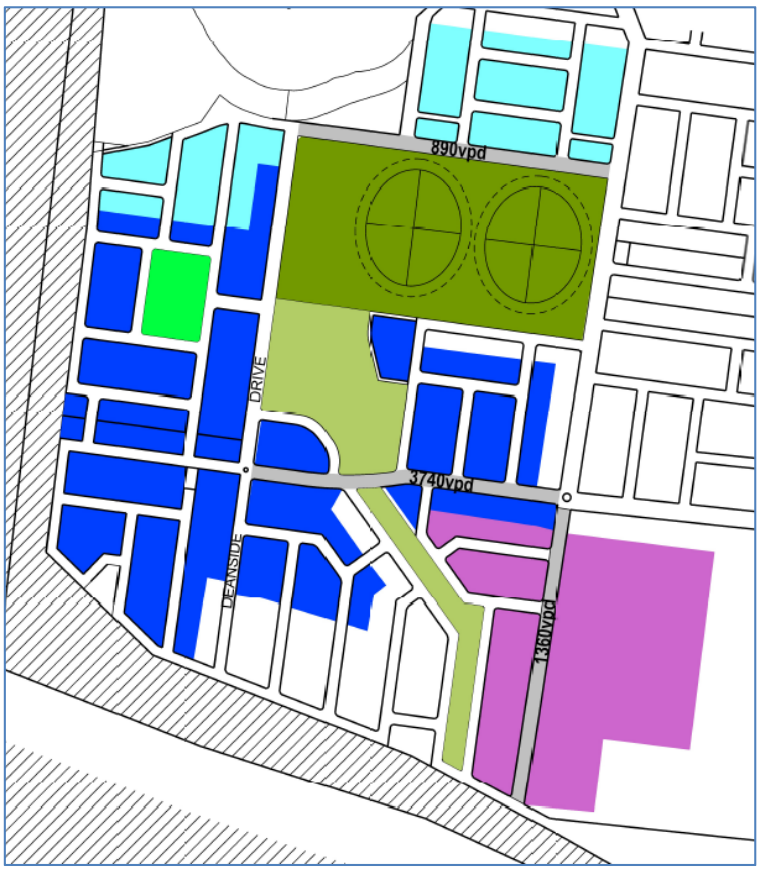


Figure 2: Predicted traffic volumes resulting from road network design

2.2 Deanside southern access track

Issue:

a) *Give consideration as to whether the north-south Deanside Southern Access Track should be downgraded to LA1. It is currently shown with two separate 3.0 m wide carriageways with a 10 m central median as shown in the below extract from the proposed Section 22 – Deanside Southern Access Track.*

b) *In assessing whether it would be appropriate for the north-south collector road north of the Deanside southern access track to be downgraded to LA1, please give specific consideration to the merits of all of dwellings alongside the southern access track being restricted to left in/left out due to the median in the proposed cross-section.*

Opinion:

Issue a) –The Deanside Southern Access Track can be reduced to a LA1 cross section as the predicted traffic volume for this section of road is 1360 vpd, which is at the lower end of the 1000 to 2000 vpd range.

Issue b) – There are a number of factors to consider in relation to the Deanside Southern Access Track; the width of the traffic lane, length of one way roadway and the inability to perform midblock right turn movements to facilitate access or egress.

The traffic lane width of 3m in the proposed cross section does not allow a stopped or broken down vehicle to be passed. The available passing opportunities are only available by the adjacent parallel parking and may prevent the passing movement if occupied by a parked car.

The length of the two one way carriageways will present a barrier to right turn movement afforded by the widened central median and will encourage ad hoc crossing of the median by residents, resulting in damage to the median area.

I am of the opinion that a two way two lane carriageway be considered and located to the east or west of the Deanside access track would be preferred. Those properties at the far side of the Deanside track would cross this area via a controlled / constrained lengthened driveway, thereby reducing the likelihood of damage to the widened Deanside track area. The benefits of this recommendation are:

- Facilitate the passing of stationary / broken down vehicles,
- Provision of right turn entry and egress to all properties, and
- Direct lines of access for emergency services.

It is noted that the identification of cross section 21 as reflecting the Deanside access track in the exhibited PSP is incorrect and the VPA have since provided a further cross section 22. Refer to Section 22 contained in Appendix B.

2.3 Pedestrian bridge locations

Issue:

Provide commentary on the number and location of pedestrian bridges within the exhibited PSP. Specifically these bridges are:

- *PBR05, 500m west of the Hopkins Road bridge (incorrectly labelled as PBR07 on the exhibited PSP).*
- *PBR06 and PBR07 – location and numbers of structures.*
- *PBR08 – Functionality and need of structure within the exhibited PSP.*

Opinion:

PBR05 located 500m north west of the Hopkins Road bridge does not correspond with a proposed north-south path network. The nearby Hopkins Road structure and the proposed north-south collector bridge are better connected to north-south routes. I consider the PBR05 structure to be an expensive item providing low benefits to the surrounding future community.

It is noted that PBR06 and PBR07 are located 1km apart over the Kororoit Creek at the north perimeter of the proposed Kororoit Regional Park. Both proposed pedestrian bridges are centrally located connecting to parcels to the north of Kororoit Creek. These locations do not accord with a likely consolidated future path network. The installation of the two bridges rather than a single consolidated position will lock in future pedestrian desire lines independent to the proposed lineal Creekside paths.

It is recommended that the two bridges PBR06 and PBR07 be consolidated to a single location.

The proposed PBR08 and the Hopkins Road overpass of the Western Freeway are both located within the 800m catchment of the proposed train station and as such, each bridge structure is servicing the same walking catchment. It is therefore questionable as to the need for PBR08 in such close proximity to the Hopkins Road overpass. As the PBR08 exclusively services pedestrian and bicycle movements the catchment for these users is a relatively small area of the precinct so the provision of PBR08 seems to be an expensive item for low benefit.

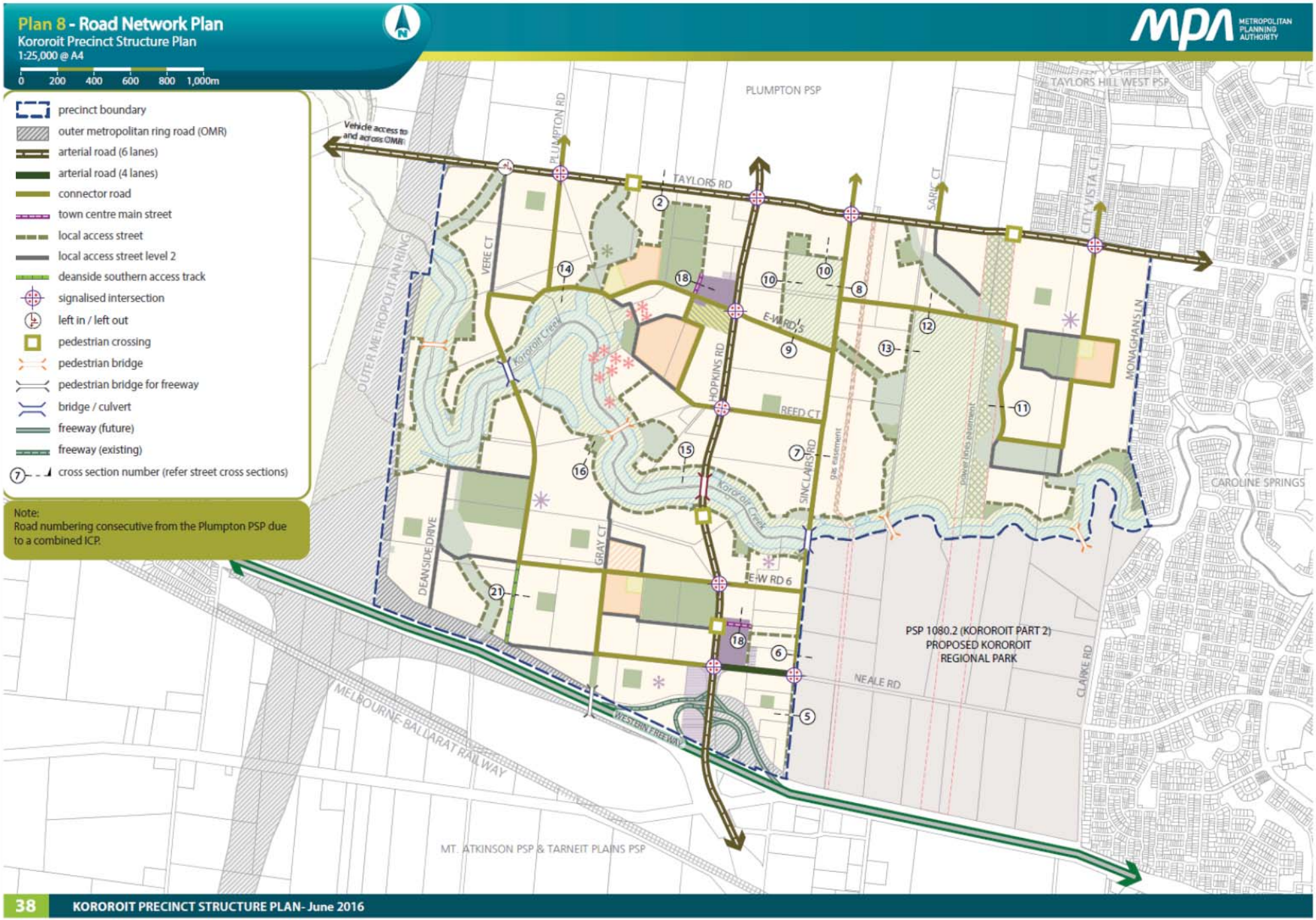
It is recommended that PBR08 be deleted in favour of the nearby Hopkins Road overpass.

3. SUMMARY AND CONCLUSIONS

Based on the preceding issues raised by Norton Rose Fulbright, acting for the developer of the Deanside residential development within the Kororoit PSP and responses captured in my opinions, the following summarises my views with respect to the Kororoit PSP:

- The cross section of the southern east-west road should not be reduced to a classification lower than a LA2 road.
- There is potential to reduce the northern east-west road to LA1, perhaps with the addition of indented parking on the southern side of the road.
- Deanside Access Track can be designated as a Local Access road (LA1) due to the traffic generation related to the possible lots yields in that vicinity.
- A new proposed roadway be located to one side of the existing Deanside access track that will allow passing of stationary vehicles and permit controlled access over the land area occupied by the Deanside access track.
- Pedestrian / bicycle bridge PBR05 be removed due to the proximity of the Hopkins Road bridge to the east and north-south collector bridge to the west.
- Pedestrian / bicycle bridges PBR06 and PBR07 be consolidated into a single crossing of Kororoit creek.
- Pedestrian / bicycle bridge PBR08 be removed from the PSP in favour of the nearby Hopkins Road structure.

APPENDIX A – KORORIT PSP – PLAN 8


Plan 8 - Road Network Plan
Kororoit Precinct Structure Plan
1:25,000 @ A4
0 200 400 600 800 1,000m
MPA METROPOLITAN PLANNING AUTHORITY
precinct boundary
outer metropolitan ring road (OMR)
arterial road (6 lanes)
arterial road (4 lanes)
connector road
town centre main street
local access street
local access street level 2
deanside southern access track
signalised intersection
left in / left out
pedestrian crossing
pedestrian bridge
pedestrian bridge for freeway
bridge / culvert
freeway (future)
freeway (existing)
cross section number (refer street cross sections)
Note:
Road numbering consecutive from the Plumpton PSP due to a combined ICP.
PLUMPTON PSP
TAYLORS HILL WEST PSP
Vehicle access to and across OMR
PLUMPTON RD
TAYLORS RD
SARIC CT
CITY VISTA CT
MONAGHANS LN
VERE CT
OUTER METROPOLITAN RING
Kororoit Creek
HOPKINS RD
E-W RD 3
REED CT
SINCLAIR RD
gas easement
power lines easement
CAROLINE SPRINGS
DEANSIDE DRIVE
GRAY CT
E-W RD 6
PSP 1080.2 (KORORIOT PART 2)
PROPOSED KORORIOT
REGIONAL PARK
NEALE RD
CLARKE RD
MELBOURNE-BALLARAT RAILWAY
WESTERN FREEWAY
MT. ATKINSON PSP & TARNEIT PLAINS PSP
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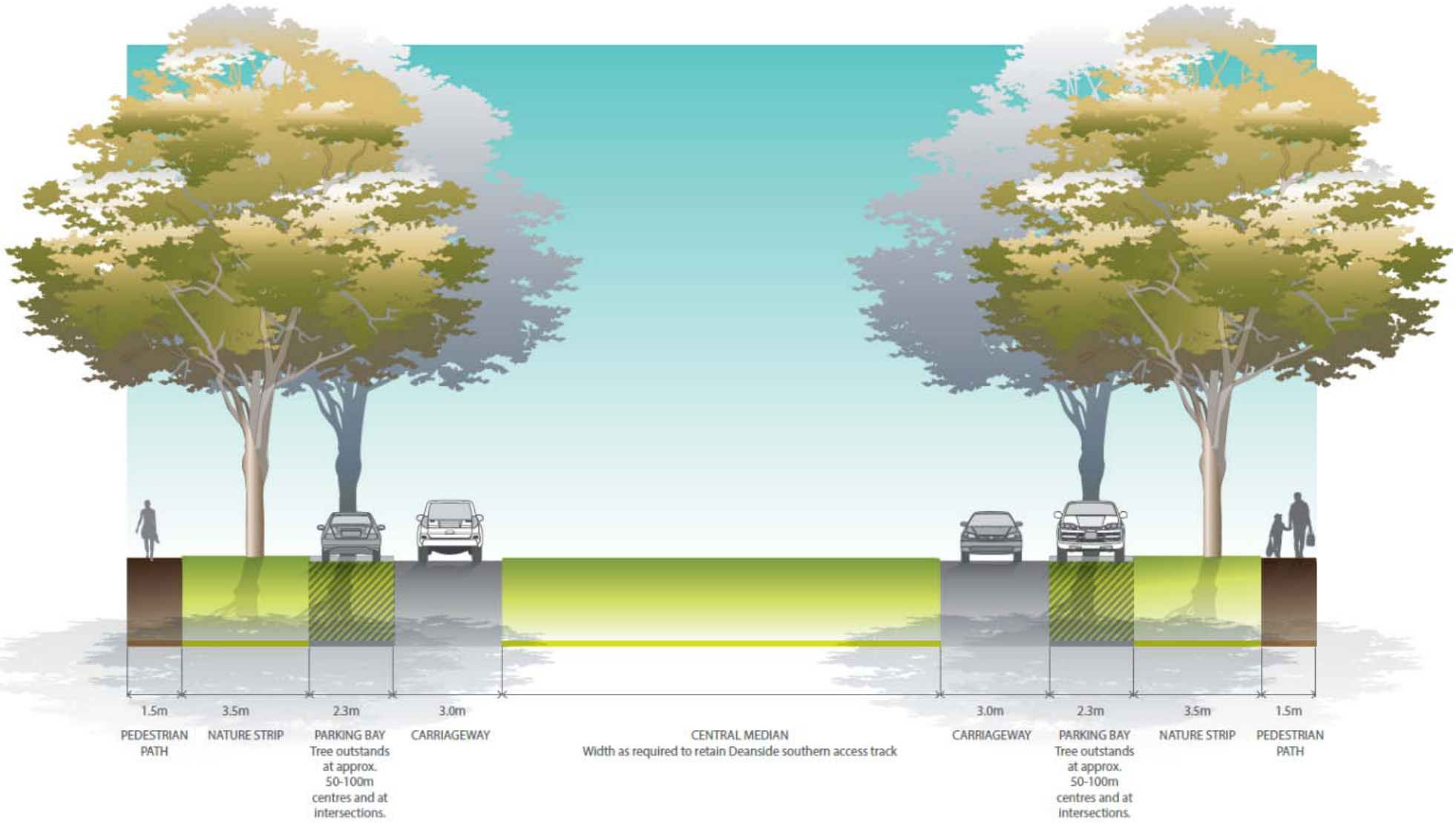
KORORIOT PRECINCT STRUCTURE PLAN- June 2016

APPENDIX B – KORONROIT PSP – SECTION 22



Section 22

Deanside Southern Access Track - Local Access Street

MPA METROPOLITAN PLANNING AUTHORITY

NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

APPENDIX C – KORO ROIT PSP – PLAN 12


MPA METROPOLITAN PLANNING AUTHORITY
Plan 12 - Precinct Infrastructure - Transport (ICP)
Plumpton & Kororoit Infrastructure Contributions Plan
1:30,000 @ A4
0 300 600 900 1,200 1,500m
GREEN WEDGE
Future possible extension to Sunbury
MELTON HWY
WARRENSBROOK PSP
ROCKBANK NORTH PSP
TAYLORS HILL WEST PSP
MT. ATKINSON PSP & TARNEIT PLAINS PSP
PSP 1080.2 (KORORIT PART 2) PROPOSED KORORIT REGIONAL PARK
R1 (PLUMPTON RD)
R2 (TARLETON RD)
R3 (BEATTYS RD)
R4 (SARIC CT)
R5 (REED CT)
R6 (DEANSIDE CT)
R7 (GRAY CT)
R8 (NEALE RD)
R9-R
R9-E
R3 (SINCLAIRS RD)
R4 (MONAGHANS LN)
MELBOURNE-BALLARAT RAILWAY
OUTER METROPOLITAN RING
ICP boundary
road project
intersection project
bridge project
pedestrian bridge
culvert project
pedestrian signal
RD-07 ICP project identification number
BR bridge
PBR pedestrian bridge
CU culvert
IN intersection
RD road
PS pedestrian signal
KORORIT PRECINCT STRUCTURE PLAN - June 2016
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Project Name:	Expert evidence Statement – Kororoit PSP – Amendment C145
Project Number:	
Report for:	Norton Rose Fulbright

PREPARATION, REVIEW AND AUTHORISATION

Revision #	Date	Prepared by	Reviewed by	Approved for Issue by
0	24/11/2016	P. Ridgeway C. Emmitt	D. Gregor S. Watters	D. Gregor

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