

TRAFFIC AND PARKING ASSESSMENT
FOR
SECTION 96 MODIFICATION 3
TO SSD6801
DEVELOPMENT CONSENT FOR
QUARRYWEST ESTATE

Ref. 17032r Mod 3

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Prepared By

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1.0 INTRODUCTION

The QuarryWEST Estate Masterplan was approved by the Minister for Planning on 20 October 2015. Consent Approval SSD6801 refers.

Dexus is proposing modifications to some of the warehouse development within QuarryWEST Estate, namely warehouse buildings for Lot B (Lots 4 and 5). **Figure 1** shows the location of QuarryWEST.

This Section 96 application is for Modification No. 3. Two (2) previous Section 96 applications sought modifications to

- Lot A (Lot 1), Lot B (Lots 4 and 5) and Lot E (Lot 6) – Modification 1; and
- Lot B (Lots 4 and 5) – Modification 2.

Both Modification 1 and 2 have been approved.

This report has been prepared to assess and address the traffic and parking issues associated with Modification 3 for the proposed changes to the warehouse developments for Lot B (Lots 4 & 5).

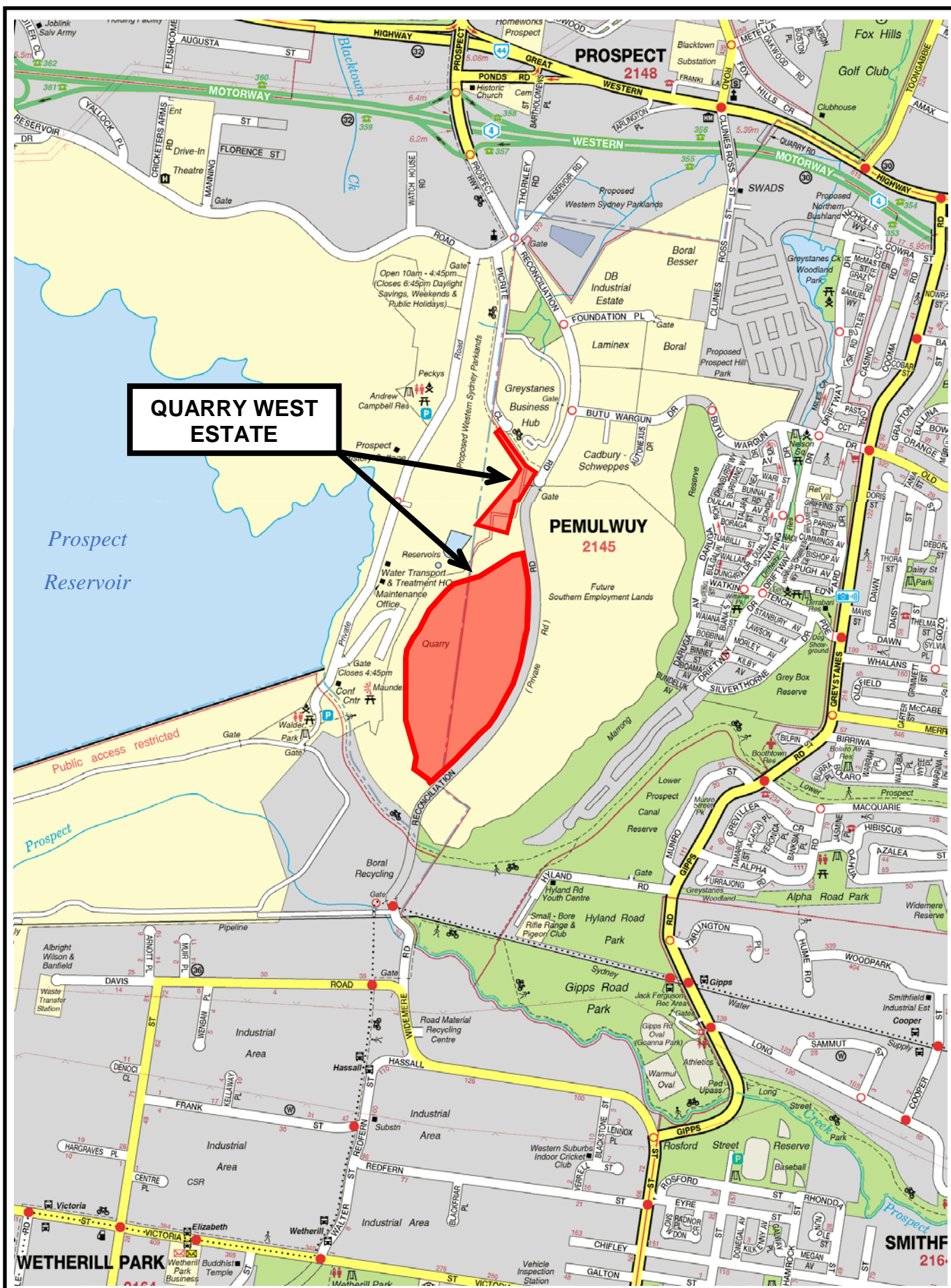
Section 2 of this report provides details of the approved development with the previously approved Modification 1 and 2, as well as the changes proposed in this Section 96 Modification 3.

Section 3 of this report examines the traffic and parking and other impacts of proposed changes to the warehouse developments for Modification 3; and

Section 4 provides conclusions.

This report is an addendum report to the previous traffic and parking assessment reports^{1,2 & 3} prepared for QuarryWEST.

1. *Traffic Assessment Report for QuarryWEST Estate Southern Employment Lands Greystanes. Ref. 14136r-1 Revision 1, 19 March 2015, Transport and Urban Planning Pty Ltd.*
2. *Section 96 Modification to SSD6801 Development Consent for QuarryWEST Ref. 16079r, 3 May 2016. Transport and Urban Planning Pty Ltd.*
3. *Traffic and Parking Assessment for Section 96 Modification 2 to SSD6801 Development. Consent for QuarryWEST Estate 16079r Mod 2 19 July 2016. Transport and Urban Planning Pty Ltd.*



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NOT TO SCALE

FIGURE 1

QUARRYWEST ESTATE,
RECONCILIATION RD, PEMULWUY
SECTION 96 MODIFICATION

SITE LOCATION

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2.0 QUARRY WEST DEVELOPMENT AND PROPOSED CHANGES WITH SECTION 96 MODIFICATION 3

2.1 QuarryWEST Approved Development and Approved Section 96 Modifications 1 and 2

Approved Development

SSD6801 provided development consent for the entirety of the QuarryWEST Development which included;

- Subdivision of the site to create nominally eight development lots and roads;
- Construction of internal roads and site services;
- Detailed earthworks;
- Construction and use of industrial (warehouse and distribution centre) and business facilities (retail facilities) across the site with a total GFA of 127,765m² across the site including 2,870m² of retail GFA and 350m² of shop (fast food/petrol); and
- Ancillary development including hardstand, carparking and landscaping with a nominal car parking provision in the QuarryWEST Estate Masterplan of 989 car spaces, as well as bicycle parking.

The approval also included vehicle access to QuarryWEST from Prospect Highway (Reconciliation Road) via the following signalised and unsignalised intersections.

- Bellevue Circuit Cul-de-Sac, which is a new road opposite Bellevue Circuit;
- Basalt Road West which is an existing road previously constructed opposite Basalt Road East;
- Dolerite Close which is partly constructed at Prospect Highway opposite Turnbull Close and would become a signalised intersection;
- Picrite Close (for Lot F only) which is an existing cul-de-sac accessed off Reservoir Road.

Figure 2 shows the approved road network and access intersections for QuarryWEST.

Approved Section 96 Modification 1

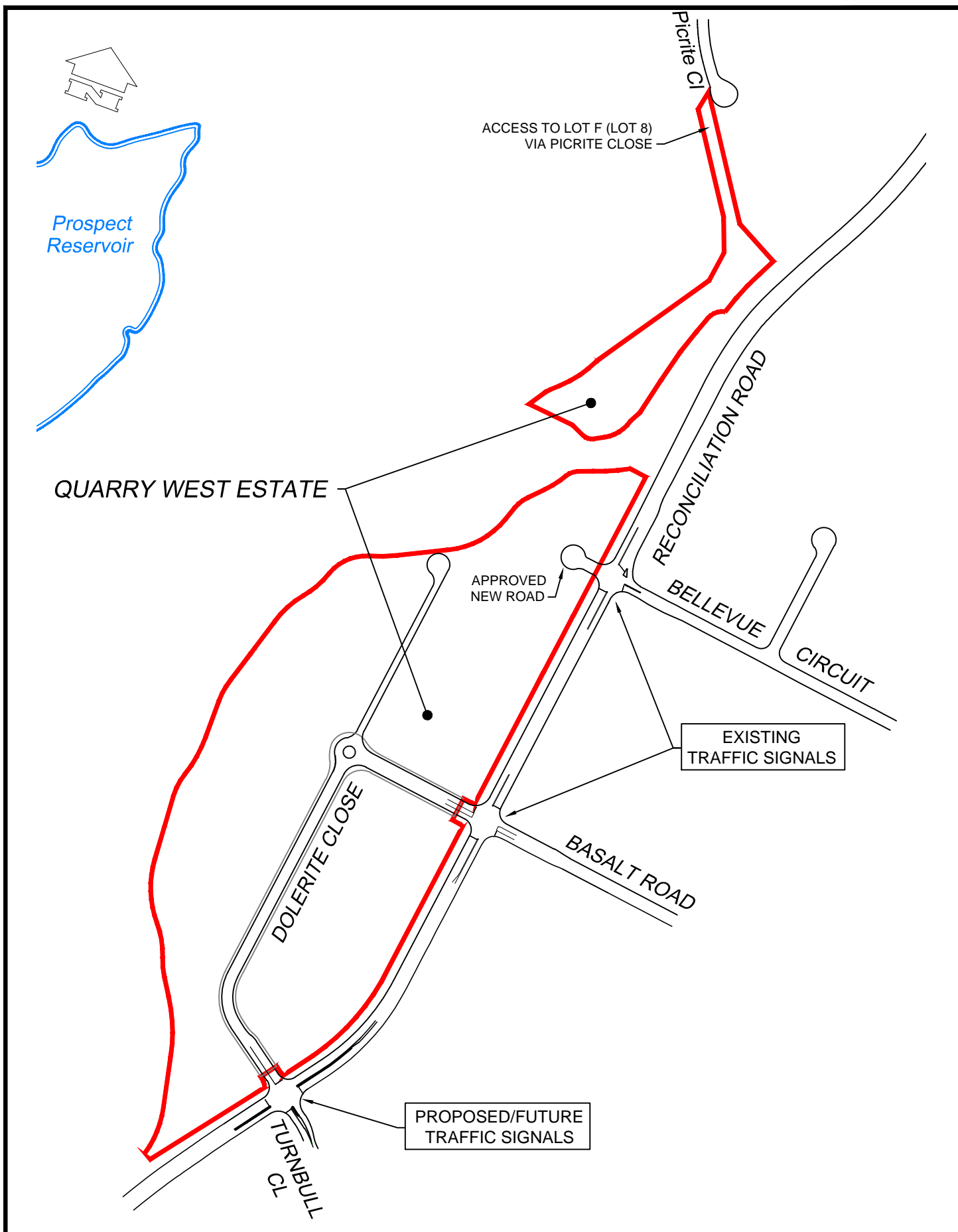
The Section 96 Modification 1 included variations to the floor space for the warehouse buildings for Lot A (Lot 1), Lot B (Lots 4 and 5) and Lot E (Lot 6), as well as changes to the parking and hardstand areas.

There was no change to the total approved floor area of 127,765m² GFA and total nominal car parking was provided for 952 cars and bicycle parking for 78 bikes.

Approved Section 96 Modification 2

The Section 96 Modification 2 which is the current approved development involved a reduction in the floor area of the warehouse buildings for Lot B (Lots 4 and 5), together with a reduction in parking and changes to the loading areas.

Total warehouse floor area for Lot B (Lots 4 and 5) is 43,020m² GFA and the total office area is 2,380m².



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FIGURE 2

QUARRYWEST ESTATE, RECONCILIATION RD, PEMULWUY
SECTION 96 MODIFICATION

APPROVED ROAD NETWORK & ACCESS INTERSECTIONS FOR QUARRYWEST

JOB NO.17032

The required car parking for Lot B (Lots 4 and 5) is 203 spaces and 206 spaces are approved.

Overall the total warehouse and office space for QuarryWEST with the Section 96 Modification 2 is 121,130m² GFA which is a reduction of 3,415m² of floor area from the previously approved development.

2.2 Proposed Section 96 Modification 3 Changes

The proposed Section 96 Modification 3 involves changes to the warehouse buildings for Lot B (Lots 4 and 5). While there is an overall reduction in the floor area for the two warehouse buildings, both buildings have been reconfigured. The changes include:

- A reduction in warehouse floor area from 43,020m² GFA to 40,500m² GFA
- An increase in to the office area from 2,380m² GFA to 2,780m² GFA
- An increase in required car parking from 203 car spaces to 205 car spaces; and
- An increase in proposed parking provision from 206 car spaces to 272 parking spaces, with reconfigured parking areas for both warehouse buildings

There are also modifications to the truck loading areas for the warehouse building located in Lot B (Lots 4 and 5), as well as changes to entry / exit driveways.

The Section 96 Modification 3 proposal is shown on the architect plans.

The floor space for QuarryWEST with the Section 96 Modification 3 changes are shown in Table 2.1. Overall the total warehouse and office space for QuarryWEST with the Section 96 Modification 3 will be 119,010m² GFA which is a reduction of 2,120m² of floor area from the approved development.

TABLE 2.1**FLOOR SPACE OF QUARRYWEST WITH SECTION 96 MODIFICATION 3**

Developable Lot	Proposed Use and Floor Space (GFAm²)						
	Warehouse	Office	Sub Total Warehouse and Office	Retail	Super-market	Petrol	Fast Food
Developable Lot A Lot 1	8,090	970	9,060				
Developable Lot B Lots 4* & 5*	40,500	2,780	43,280				
Developable Lot C Lot 2				870	2000 ¹	100 ¹	250 ¹
Developable Lot D Lot 3	24,155	2,500	26,655				
Developable Lot E Lots 6 & 7	33,470 ³	4,995	38,465				
Developable Lot F Lot 8	1,200	350	1,550				
TOTAL	107,415	11,595	119,010	3,220²			

* Lots where Modification 3 changes are proposed

1. Included in total as retail space
2. Includes retail, supermarket, fast food and petrol
3. Includes technical area of 1,500m²

3.0 ASSESSMENT OF TRAFFIC AND PARKING IMPACTS OF SECTION 96 MODIFICATION 3

3.1 Assessment of Traffic Impacts

Due to the reduction in the floor area for the Lot B (Lots 4 & 5) warehouse buildings under the Section 96 Modification 3 there will be a small reduction in overall traffic generation of QuarryWEST of some 10 vehicle trips per hour in the weekday AM and PM peak hours, from the approved development (with Modification 2).

The expected traffic generation is now estimated to be 842 two way trips in the AM peak hour and 1131 two way trips in the PM peak hour.

All the intersections that will provide vehicle access to QuarryWEST including the traffic signal controlled intersection in Prospect Highway / Reconciliation Road will continue to operate at satisfactory operation (ie. Level of Service B or C operation) in the AM and PM peak hour with no real change to the conditions as previously assessed for the approved development. RMS Guidelines indicate that a Level of Service D or better (ie A, B, C or D is a satisfactory operation).

3.2 Parking Provision

3.2.1 Car Parking

The approved Modified Concept Plan for Greystanes SEL and Cumberland Council's DCP requires the car parking to be provided in accordance with the following rates:

- | | | |
|---------------------|---|---|
| • Warehouse | - | one (1) space per 300m ² GFA |
| • Commercial/office | - | one (1) space per 40m ² GFA |
| • Retail | - | one (1) space per 20m ² GFA |
| • Industrial | - | one (1) space per 77m ² GFA |
| • Shop | - | one (1) space per 8m ² GFA |

Table 3.1 shows the parking calculation for the QuarryWEST Estate broken down for the development lot areas. Reference to Table 3.1 shows that the parking requirement for Lot B (Lots 4 and 5) is 205 car spaces and 272 car spaces are proposed. The parking requirement is satisfied for Lot B, as well as for all of the lots.

In total a nominal 976 car parking spaces are shown on the Section 96 Modification 3 to QuarryWEST Estate Masterplan and the total required parking is 850 car spaces.

Therefore the proposed car parking provision complies with the Modified Concept Plan for Greystanes SEL.

TABLE 3.1

**PARKING CALCULATION FOR QUARRYWEST WITH
SECTION 96 MODIFICATION 3**

Developable Lot	Floor Space (GFAm ²)						Parking Provision
	Warehouse	Industrial	Office	Retail	Shop	Required Parking	
Developable Lot A Lot 1	8,090		970			52	52
Developable Lot B Lots 4* & 5*	40,500		2,780			205	272
Developable Lot C Lot 2				2,870	350	187	188
Developable Lot D Lot 3	24,155		2,500			143	143
Developable Lot E Lots 6 & 7	31,970	1,500	4,995			250	270
Developable Lot F Lot 8	1,200		350			13	51
TOTAL	105,915	1,500	11,595	2,870	350	850	976

* Lots where Section 96 Modification 3 changes are proposed to approved development.

The car parking areas are and will be designed to comply with the requirements of AS2890.1 and AS2890.6 with regard to space size, aisle widths and grades. Driveways to car park areas will be designed to AS2890.1 standards and will provide sufficient sight distance in accordance with AS2890.1.

3.2.2 Bicycle Parking

Bicycle parking provision requirements are;

- 2 spaces; plus
- 5% of car park spaces if development exceeds 4,200m² floor area.

Based on this, a total of 49 bicycle parking spaces are required for the QuarryWEST development.

For the proposed Section 96 Modification 3 changes to Lot B (Lots 4 and 5) the required bicycle parking for Lot B is 18 bicycles and a total of 22 bicycle parking spaces will be provided.

The overall QuarryWEST development with the Section 96 Modification 3 will provide a total 80 spaces for bicycles for QuarryWEST and therefore the requirements of bicycle parking are easily met.

3.3 Internal Manoeuvring within Warehouse Developments and Truck Parking

The modified warehouse layouts and hard stand areas for Lot B (Lots 4 and 5) will be designed to accommodate the largest vehicle, which will use these warehouses.

The truck fleet that will operate from QuarryWEST in the next 10 years will be rigid trucks (8.8 metres to 12.5 metres long), 19 metre long articulated vehicles (semi trailers) and 25-26 metre B-doubles. The majority of the truck fleet will be 19 metre articulated vehicles (i.e. semi trailers). Rigid trucks and B-doubles will represent

smaller proportions of the truck fleet. Warehouse B1 loading area is designed to accommodate rigid trucks and 19.0 metre articulated vehicles. Warehouse B2 loading area is designed to accommodate 25-26 metre B-doubles.

The driveways to the warehouse building located on Lot B (Lots 4 and 5) are located in Dolerite Way and in the Estate Access Road.

All driveways and internal roads that will provide access to hard stand areas for the Lot B warehouse sites are/will be designed to fully comply with AS2890.2 requirements for the largest vehicle that will visit the development. Driveway locations will provide adequate sight distance.

The hard stand areas are/will be designed to comply with AS2890.2 requirements with respect to manoeuvring, grades etc.

3.4 QuarryWEST Estate Road Network

In accordance with the approved conditions, the public roads within QuarryWEST subdivision are designed to the relevant standards (ie. Austroad and Cumberland Council standards). These public roads and new access intersections are designed to accommodate a PBS Level 2 B vehicles (up to 30 metres in length) using these roads.

3.5 Construction Impacts

The Section 96 Modification 3 to the warehouse buildings for Lot B (Lots 4 and 5) will not change the construction impacts previously assessed for the approved QuarryWEST Development.

The construction impacts are being managed through the Construction Traffic Management Plan for QuarryWEST Estate, Revision 2 dated 15 December 2015.

3.6 Public Transport, Bicycle Network, Pedestrian Network

The Section 96 Modification will have no impact on existing and future public transport services, the bicycle network or the pedestrian network at QuarryWEST.

4.0 CONCLUSIONS

Dexus is proposing a third modification to the approved QuarryWEST Estate Masterplan which was approved by the Minister for Planning 20 October 2015.

The proposed changes are part of a Section 96 Modification 3 Application which involves modifications to the Lot B (Lots 4 and 5) warehouse developments, which results in a reduction of the floor area for Lot B (Lots 4 and 5), as well as for the overall development.

An assessment of the traffic impacts for the Section 96 Modification 3 indicates that these impacts will be of the same order as for the approved development, with no change to the traffic patterns. The traffic generation for QuarryWEST with the proposed Section 96 Modification 3 will be slightly lower than for the approved development.

QuarryWEST Estate will have sufficient car and bicycle parking for each individual development including Lot B (Lots 4 and 5) and for the QuarryWEST Estate as a whole and meets the parking requirements of the approved Modified Concept Plan for Greystanes SEL.

Car parking and vehicle access driveways, as well as the hard stand areas for truck loading and manoeuvring for Lot B (Lots 4 and 5) are and will be designed to AS2890.1 and AS2890.2 requirements, as appropriate. Disabled parking spaces will be provided as required and will be designed to comply with AS2890.6.

The Section 96 Modification 3 does not propose any changes to the QuarryWEST Estate road network which was previously approved.

There will be no change to the construction impacts previously assessed for the approved development and the construction impacts will continue to be managed through the Construction Traffic Management Plan for QuarryWEST Estate.

APPENDIX 1

List of Plans for Section 96 Modification 3 for QuarryWEST Masterplan.

- Quarry Masterplan - 3966_MP.001(G) February 2017
- Overall Site Plan - 3966_MP-002(G) February 2017
- Subdivision Plan - 3966_MP-003(G) February 2017
- Developable Lot B Plan - 3966_MP-012(H) February 2017
- Developable Lot B Coloured Elevations_Sheet 3-3966_MP-026_3(E) February 2017
- Developable Lot B Coloured Elevations_Sheet 4-3966_MP-026_4(E) February 2017
- Developable Lot B Coloured Elevations_Sheet 5-3966_MP-026_5(E) February 2017
- Developable Lot B Coloured Elevations_Sheet 6-3966_MP-026_6(E) February 2017
- Developable Lot B Coloured Elevations_Sheet 7-3966_MP-026_7(C) February 2017
- Developable Lot B Coloured Elevations_Sheet 8-3966_MP-026_8(C) February 2017