

BREAKFAST POINT PTY LTD

REVIEW OF TRAFFIC ASPECTS
OF PROPOSED SECTION 75
MODIFICATIONS TO APPROVED
CONCEPT PLAN AT BREAKFAST
POINT

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I. INTRODUCTION

- I.1. Colston Budd Hunt & Kafes Pty Ltd has been retained by Breakfast Point Pty Ltd to review the traffic implications of the proposed Section 75W modifications to the approved concept plan at Breakfast Point. Breakfast Point is located on the southern side of the Parramatta River, as shown on Figure I.
- I.2. Breakfast Point is a residential development with some ancillary uses. There is an approved concept plan for this part of the site. The overall current approvals for the site, including the approved concept plan, provide for some 2,296 dwellings on the site, including 227 seniors living dwellings.
- I.3. The proposed modifications to the approved concept plan include:
- increasing the number of dwellings to 2,469 (including replacing the 227 seniors living dwellings with conventional residential dwellings); and
 - changing the mix of dwellings to provide a greater number of smaller apartments and a lesser number of larger apartments.
- I.4. Our review of the proposed modifications is set out in the following chapter.
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2. REVIEW OF TRANSPORT ASPECTS

2.1. Our review of the transport aspects of the proposed modifications to the concept plan is set out through the following sections:

- ❑ approved development;
- ❑ proposed modifications;
- ❑ external traffic;
- ❑ site access;
- ❑ internal roads;
- ❑ public transport;
- ❑ parking; and
- ❑ summary.

Approved Development

2.2. Approved development at Breakfast Point, including the approved concept plan, includes:

- ❑ 375 one bedroom apartments;
 - ❑ 893 two bedroom apartments;
 - ❑ 801 apartments with three or more bedrooms;
 - ❑ 227 seniors living apartments;
 - ❑ some 2,141m² retail;
 - ❑ some 3,698m² commercial and community uses.
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Proposed Modifications

2.3. The proposed modifications to the concept plan would result in the following:

- 572 one bedroom apartments;
- 1,058 two bedroom apartments;
- 839 apartments with three or more bedrooms;
- deletion of the seniors living component; and
- no changes to the retail/commercial/community uses.

External Traffic

2.4. In relation to external traffic, previous studies have assessed the external traffic effects based on the following residential traffic generation rates:

- one/two bedroom dwellings: 0.43 vehicles per hour per apartment;
- three/four bedroom dwelling: 0.55 vehicles per hour per apartment; and
- seniors living: 0.17 vehicles per hour per apartment.

2.5. Based on these rates, the proposed modifications would result in an increase in traffic generation of some 170 vehicles per hour two-way at peak times, compared to the previously approved development.

2.6. There are a number of access points to the Breakfast Point development from the external road network. These include Peninsula Drive, Magnolia Drive, Orchards Avenue, Adams Street, Admiralty Drive and Breakfast Point Boulevard. Therefore, the additional traffic would be spread between a number of access points.

- 2.7. The majority of the additional development is located in the Seashore Precinct, located towards the northern part of Breakfast Point. The majority of dwellings in this precinct would be likely to use Peninsula Drive and Magnolia Drive for access.
- 2.8. To assess the effects of the additional traffic, we have undertaken traffic counts at the intersections of Tennyson Road with Peninsula Drive and Magnolia Drive during weekday morning and afternoon peak periods. Peak hour traffic flows are shown in Figures 2 and 3, and summarised in Table 2.1.

Table 2.1: Existing two-way (sum of both directions) peak hour traffic flows			
Road	Location	AM peak hour	PM peak hour
Tennyson Road	North of Peninsula Drive	10	10
	North of Magnolia Drive	165	170
	South of Magnolia Drive	260	255
Peninsula Drive	East of Tennyson Road	25	35
Magnolia Drive	East of Tennyson Road	135	155

- 2.9. Table 2.1 shows that Tennyson Road carried some 165 to 260 vehicles per hour two-way, south of Peninsula Drive, during the surveyed peak hours. Magnolia Drive carried lower flows of some 135 to 155 vehicles per hour two-way. Peninsula Drive carried some 25 to 35 vehicles per our two-way.
- 2.10. As also shown in these figures, the additional traffic from the proposed Section 75W modifications would be some 65 to 165 vehicles per hour two-way on Tennyson Road and some 65 to 105 vehicles per hour two-way on Peninsula Drive and Magnolia Drive.

2.11. To assess the effects of this additional traffic, the operations of the intersections of Tennyson Road with Peninsula Drive and Magnolia Drive have been analysed using SIDRA. SIDRA simulates the operations of intersections to provide a number of performance measures.

2.12. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

- For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	"A"	Good
15 to 28	=	"B"	Good with minimal delays and spare capacity
29 to 42	=	"C"	Satisfactory with spare capacity
43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode.
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS:
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0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

- 2.13. It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.
- 2.14. The analysis found that with the additional traffic from the approved developments and proposed Section 75W modifications, the intersections of Tennyson Road with Peninsula Drive and Magnolia Drive would operate with average delays of less than 15 seconds per vehicle during peak periods. This represents level of service A/B, a good level of service.
- 2.15. Therefore, the surrounding road network will be able to cater for the additional traffic from the proposed development.
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Site Access

- 2.16. Site access is unaltered from previous approvals with the three access roads off Tennyson Road plus the accesses via Adams Street, Admiralty Drive and Breakfast Point Boulevard.

Internal Roads

- 2.18 The internal road network is basically completed, and is not proposed to change.

Public Transport

- 2.19 The main internal roads within Breakfast Point are designed to accommodate bus services. Overall, the proposed amendments to the concept plan do not affect bus services.

Parking

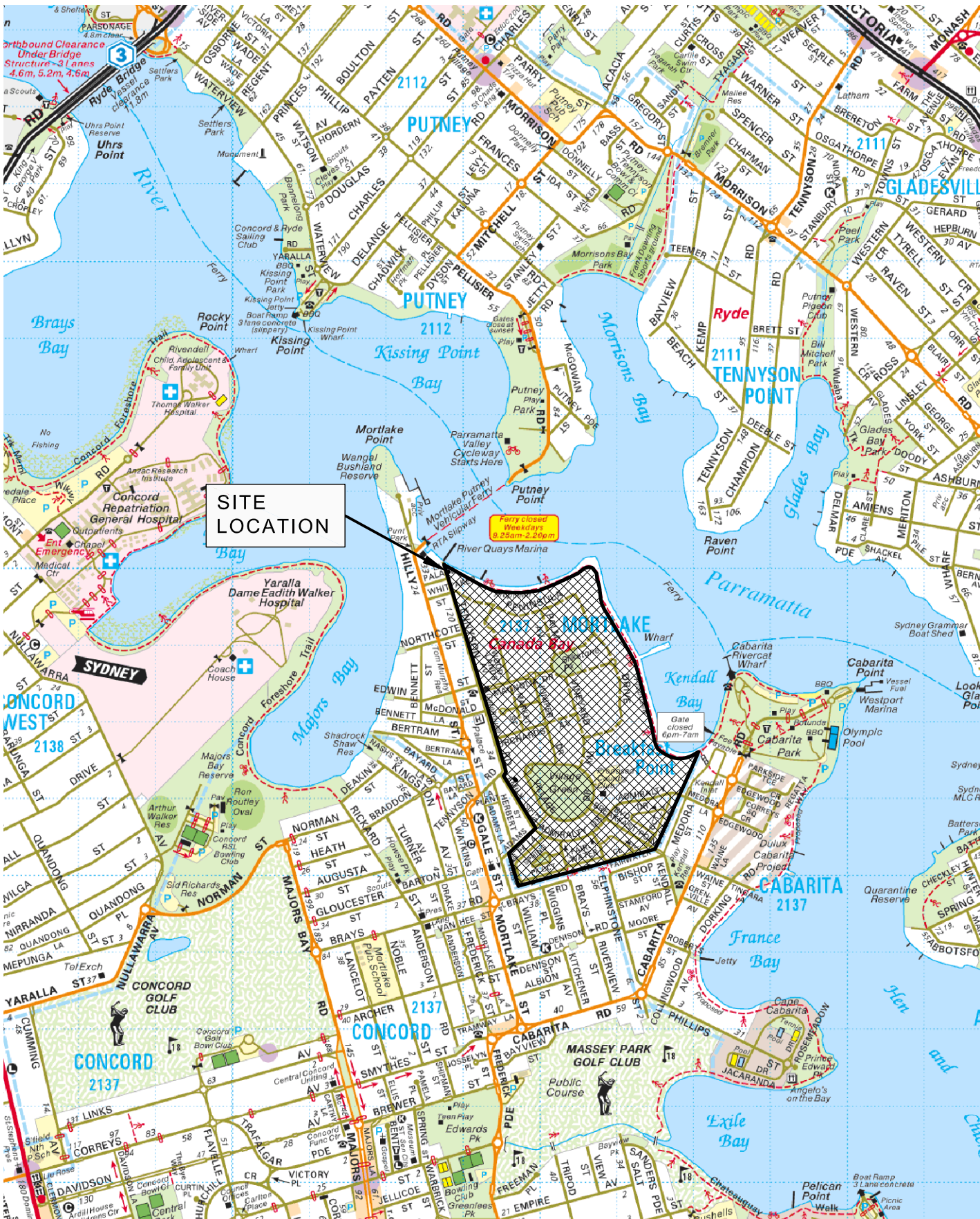
- 2.20 Car parking will be designed in accordance with AS 2890.1:2004. Parking for the various components of the development is proposed to be provided at the following rates:

❖	Residential	Detached family dwelling Attached dwelling	Two spaces (garaged) Two spaces (garaged)
❖	Town houses/apartments	Three or more bedrooms Two bedrooms One bedroom	Two spaces (garaged) 1.5 spaces (one garaged) One space (garaged)
❖	Residential visitors	One space per five dwellings	
❖	Shops	One space per 20m ²	
❖	Offices	One space per 40m ²	

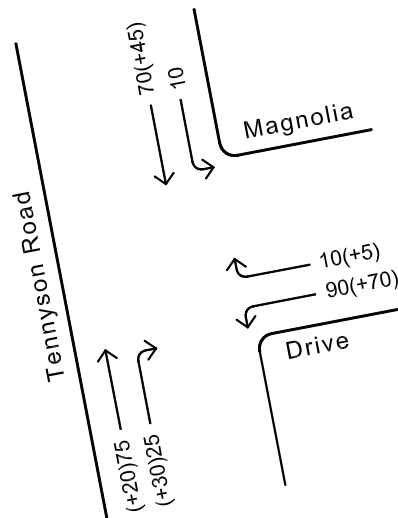
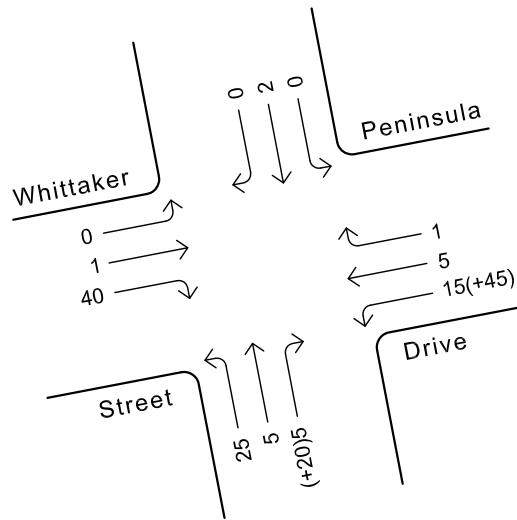
- 2.21 The residential visitor parking will be provided on street unless it can not be provided within 100 metres of the development. These parking provisions are the same as in previous approvals.

Summary

- 2.22 In summary, the road network will be able to cater for the additional traffic from the proposed Section 75W amendments. Site access and the internal road layout are not proposed to change. Provision of parking, public transport and service vehicles are also the same as in previous approvals.



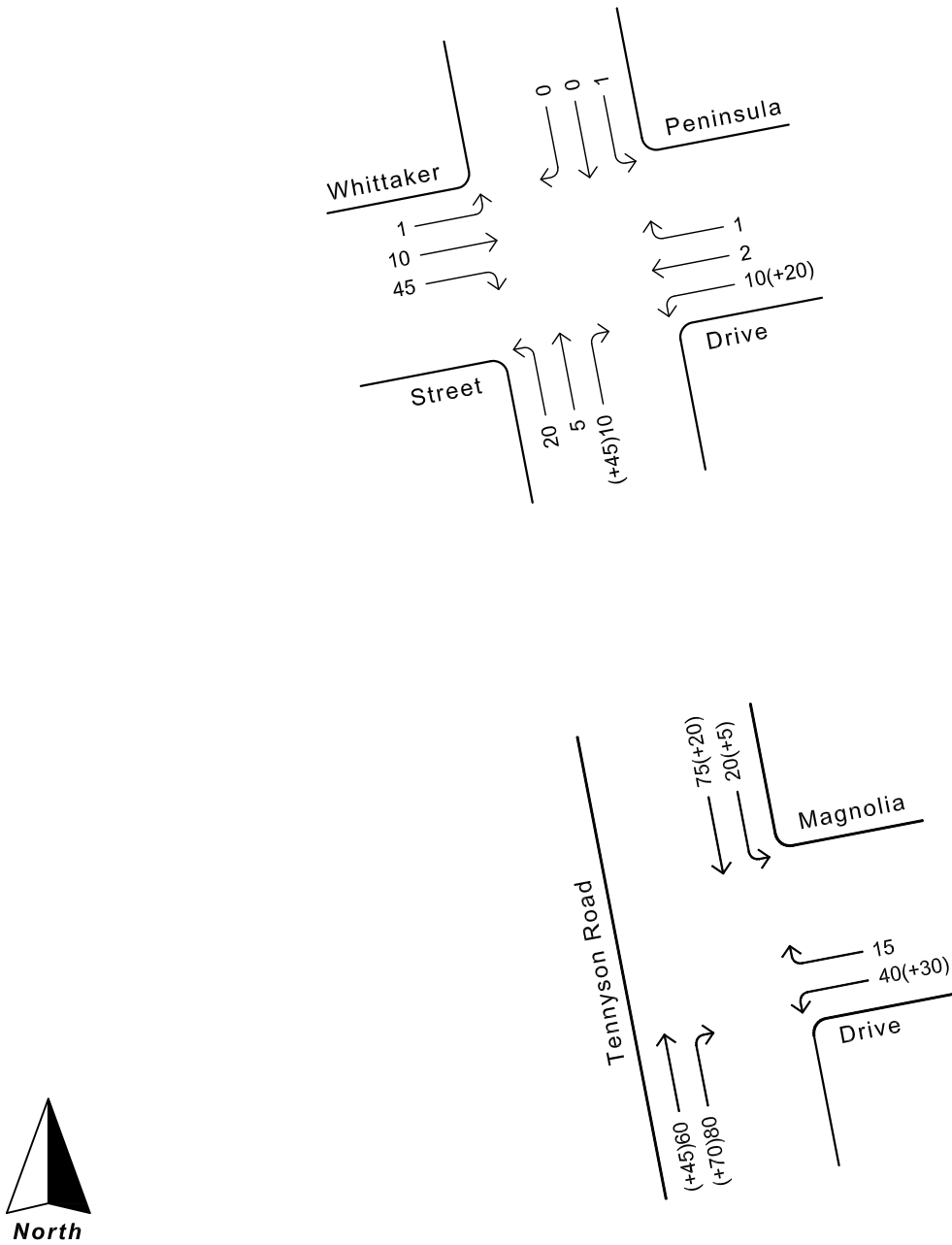
Location Plan



LEGEND

- 100 - Existing Peak Hour Traffic Flows
- (+10) - Additional Development Traffic

Existing morning peak hour traffic flows plus development traffic



Existing afternoon peak hour traffic flows plus development traffic