TRAFFIC REPORT FOR
PROPOSED RETAIL AND
COMMUNITY DEVELOPMENT,
MARSDEN PARK

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COLSTON BUDD ROGERS & KAFES PTY LTD
ACN 002 334 296
Level 18 Tower A
Zenith Centre
821 Pacific Highway
CHATSWOOD NSW 2067

Telephone: (02) 9411 2411
Facsimile: (02) 9411 2422
Email: cbrk@cbrk.com.au

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CHAPTER 1

1. INTRODUCTION

1.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by Stockland Development Pty Limited to prepare a report examining the traffic implications of a proposed retail centre and community development at Marsden Park. The site is a block bounded by Elara Boulevard, Northbourne Drive, Harvest Street and Parish Street, and is shown in Figure 1.

1.2 The site is in the Marsden Park Precinct in the North West Priority Land Release Area. The Marsden Park Precinct will ultimately provide some 10,300 homes, a town centre and two local centres, schools, open space, recreational areas and some 3,000 jobs.

1.3 The proposed retail centre and community development comprises one of the local centres in Marsden Park. It will include a supermarket, specialty retail, medical centre, child care centre and community uses. Vehicular access would be provided from the four street frontages.

1.4 A series of previous reports and studies have been prepared to examine the overall transport requirements to accommodate development in the Marsden Park Precinct. In particular, the previous traffic study\(^1\) identified road and transport works to accommodate development of the scale envisaged for the precinct.

\(^1\) “Marsden Park Precinct Traffic and Transport Assessment.” Prepared by Aecom for Woorong Park Pty Ltd on behalf of the Department of Planning and Infrastructure, 19 April 2013.
1.5 These works are being provided, either as part of approved development applications or are included in developer agreements or Section 94 plans for the area.

1.6 The overall works to accommodate development of the Marsden Park Precinct have therefore been identified, with mechanisms in place to facilitate their implementation.

1.7 This report has been prepared in the context of those previous studies, and concentrates on local implications with respect to access, parking provision, servicing, internal layout and local traffic effects. These aspects are assessed in the following chapters.
2. EXISTING CONDITIONS

Site Location and Road Network

2.1 The site is a block bounded by Elara Boulevard, Northbourne Drive, Harvest Street and Parish Street at Marsden Park. The site is in the Marsden Park Precinct in the North West Priority Land Release Area. It is part of the Elara estate which is being developed by Stockland. The site location is shown in Figure 1.

2.2 Richmond Road connects Blacktown with Richmond. In the vicinity of the site it provides a four lane divided carriageway with two traffic lanes each way and a central median, with the provision for six lanes in the future. Major intersections are signalised with additional lanes for turning traffic. There is a pedestrian and cycle lane on the western side of the road.

2.3 Elara Boulevard intersects Richmond Road at a signalised intersection. It is one of a number of signalised intersections on Richmond Road which will provide access to the Marsden Park Precinct. Elara Boulevard provides for one traffic lane in each direction, with parking permitted clear of intersections. There are roundabouts at Watkin Crescent and Parish Street. Elara Boulevard provides access to residential areas in the precinct.

2.4 Northbourne Drive intersects Elara Boulevard at the north-western corner of the site. Northbourne Drive provides for one traffic lane in each direction, clear of intersections, with parking permitted on both sides. The intersection of Northbourne Drive with Elara Boulevard is currently an unsignalised, four-way intersection. Traffic signals will be provided at the intersection in the future, as the precinct develops.
2.5 Parish Street runs south from Elara Boulevard on the eastern side of the site. It provides for two-way traffic, with parking permitted. The intersection of Parish Street with Elara Boulevard is controlled by a roundabout. Parish Street provides access to residential areas in the estate.

2.6 Harvest Street runs along the southern side of the site, connecting Northbourne Drive with Parish Street. It provides for two-way traffic, with parking permitted. It provides access to residential dwellings which are currently under construction. The intersection of Harvest Street with Northbourne Drive is controlled by a roundabout. The intersection of Harvest Street with Parish Street is an unsignalised t-intersection.

Previous Work

2.7 The site is in the Marsden Park Precinct in the North West Priority Land Release Area. The Marsden Park Precinct will ultimately provide some 10,300 homes, a town centre and two local centres, schools, open space, recreational areas and some 3,000 jobs. The proposed development will be one of the local centres.

2.8 A series of previous studies has been prepared to examine the overall transport requirements and infrastructure to accommodate development in the Marsden Park Precinct. An indicative layout plan, development control plan and Section 94 contributions plan have been prepared for the precinct.

2.9 These studies have identified a series of transport, road and infrastructure works to accommodate development in the Marsden Park Precinct. The works include:
o a number of signalised intersections on Richmond Road, for access to and from the precinct. These have been provided in association with the Richmond Road upgrade;

o upgrade of Richmond Road to six lanes ultimately;

o a number of signalised intersections within the precinct, including at Elara Boulevard/Northbourne Drive;

o a road hierarchy to accommodate the development of the precinct for residential, retail, open space, schools and employment uses;

o public transport network, including appropriate travel routes for buses (including Elara Boulevard and Northbourne Drive); and

o a walking and cycling network throughout the precinct.

2.10 The above works are either in place, or are being constructed in association with ongoing development in the precinct, or are included in developer agreements or Section 94 plans for the area.

2.11 The overall works to accommodate development of the Marsden Park Precinct have therefore been identified, with access roads constructed to facilitate development of the subject site.
3. IMPLICATIONS OF PROPOSED DEVELOPMENT

3.1 The proposed retail centre and community development will include a supermarket (3,000m²), specialty retail (1,800m²), medical centre (1,712m²), child care centre (121 children), restaurants (267m²), gym (441m²) and community uses (710m²). Vehicular access would be provided from Elara Boulevard, Northbourne Drive, Harvest Street and Parish Street. The development would be constructed in two stages.

3.2 This chapter assesses the traffic implications of the proposed development through the following sections:

- parking provision;
- access, servicing and internal layout;
- traffic generation and effects; and
- summary.

Parking Provision

3.2 Parts 4.4.2 and 5.2.7 of the Blacktown City Council Growth Centre Precincts Development Control Plan 2010 includes the following parking requirements:

- one space per 30m² GFA for shops less than 200m²;
- one space per 22m² GFA for shops greater than 200m²;
- one space per 10m² of dining area plus one space per three employees for restaurants;
- for child care centres:
  - one employee parking space per five children under two years;
- one employee parking space per eight children under between two and three years;
- one employee parking space per 10 children between three and six years; and
- one space per six children for visitors.

3.3 The DCP does not include parking requirements for gymnasia, medical centres or community uses.

3.4 By comparison, the RMS has undertaken extensive surveys of the parking demands of shopping centres. It’s “Guide to Traffic Generating Developments” includes recommended parking rates where a detailed breakdown of the floor areas is known.

3.5 For supermarkets, the RMS guidelines recommend a parking rate of 4.2 spaces per 100m$^2$ GLA. For specialty shops, the rate is 4.5 spaces per 100m$^2$ GLA. The supermarket and specialty shops would therefore require 207 parking spaces.

3.6 Also based on extensive surveys, the RMS found peak parking demands for child care centres of one space per 4.3 children, including employee parking. On this basis, the child care centre would require 28 spaces. These demands would occur during the morning and evening set down and pick up periods. During the day, parking demands of the child care centre would be lower.

3.7 For gymnasia, the guidelines include a parking rate of three spaces per 100m$^2$ in town centres. They acknowledge that if the gym is located within a commercial or retail complex, appropriate allowance must be made for dual and complementary usage of the common off-street parking area. Based on three spaces per 100m$^2$, the gym would require 13 parking spaces.
3.8 While the RMS guidelines include parking rates for medical centres, the surveyed centres are much smaller than that proposed (average size of 460m², compared to 1,712m² at Marsden Park). We have reviewed data regarding the parking demands of larger medical centres ranging in size from 1,500m² to 2,240m² GFA at Bankstown, Caringbah, Eastwood and Mt Druitt. The centres included general practitioners, specialists, day surgery and radiology/pathology services, which will be the types of services provided at Marsden Park.

3.9 The surveys found an average peak parking demand over the four centres of 2.6 spaces per 100m² GFA. Therefore, the proposed medical centre would require some 45 parking spaces.

3.10 The restaurants would tend to have their peak demands in the evenings, when the other uses are less busy. For restaurant parking demands during the day, when the retail uses are busy, our assessment is based on 4.5 spaces per 100m², the same rate as for specialty shops. The restaurants would therefore require 12 parking spaces.

3.11 Parking for community uses/public gatherings is typically one space per four people. Based on 280 seats in the community centre, it would require some 70 parking spaces. We note that these types of uses would typically occur during the evening, when other uses are less busy. At other times during the day, parking demands of the community space would likely be less than 70 spaces.

3.12 Total parking requirements for the development, excluding the community uses, would therefore be up to some 305 spaces, comprising 207 spaces for the retail uses, up to 28 spaces for the child care centre, 13 spaces for the gym, 45 spaces for the medical centre and 12 spaces for the restaurants.
3.13 363 parking spaces are proposed which meets this requirement. The provision also readily provides for use of the community facilities during the day.

3.14 As noted above, the times of peak demand for a number of the uses, including the child care centre, restaurants and community facilities, would not coincide with the retail uses. Bearing in mind these factors, the proposed parking provision of 363 spaces is considered to be appropriate.

3.15 The proposed parking provision includes 12 disabled spaces near the front of the various buildings. Bicycle parking will be provided in accordance with appropriate requirements.

3.16 For Stage 1 of the development, the proposed uses include the child care centre, medical centre, 600m² retail, 267m² restaurants, the gym and community centre. Stage 1 parking requirements, excluding the community centre, would therefore be some 125 spaces.

3.17 208 parking spaces are proposed in Stage 1 which meets this requirement. The provision also readily provides for use of the community facilities during the day.

Access, Servicing and Internal Layout

3.18 Vehicular access to the development is proposed to be provided from Elara Boulevard, Northbourne Drive, Harvest Street and Parish Street. Customer access is proposed from all of these streets. Service vehicles would enter and exit from Harvest Street.
3.19 The driveways will be provided in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 2: Off-street commercial vehicle facilities), AS 2890.1:2004 and AS 2890.2 – 2002 to cater for a car park of the size and type proposed.

3.20 A loading dock will be provided on the southern side of the main retail building. It will provide for 19 metre semi trailers and 12.5 metre large rigid trucks for deliveries and garbage collection. Service vehicles will be able to enter and exit in a forward direction.

3.21 In Stage 1, the western car park will include provision for an 8.8 metre medium rigid truck to service the development.

3.22 Two areas of parking will be provided. The main eastern car park will provide some 304 parking spaces. The western car park, between the buildings, will provide some 59 parking spaces.

3.23 Parking spaces will be a minimum of 2.7 metres wide by 5.4 metres long, with 6.2 metre wide circulation aisles. Spaces with adjacent obstructions will be 0.3 metres wider to provide for doors to open. Disabled spaces will be a minimum of 2.4 metres wide, with a 2.4 metre wide adjacent area for wheelchairs. These dimensions are considered appropriate, being in accordance with the Australian Standard for Parking Facilities (Part 1: Off-street car parking and Part 6: Off-street parking for people with disabilities), AS 2890.1:2004 and AS 2890.6:2009.
Traffic Generation and Effects

3.24 As discussed in Chapter 2, previous studies undertaken for the Marsden Park Precinct assessed the overall future road and intersection requirements to accommodate 10,300 homes, a town centre and two local centres, schools, open space, recreational areas and some 3,000 jobs. The proposed development will be one of the local centres.

3.25 Based on RMS surveys, the proposed development would be likely to have a traffic generation of some 700 to 750 vehicles per hour two-way during weekday afternoon peak hours.

3.26 RMS guidelines suggest that some 25 per cent of visits are likely to be passing trade, i.e. customers who would have driven past the centre regardless of their visit to the centre. Being a local centre within the precinct, a significant proportion of its trade would be from people living and working in the area.

3.27 As discussed in Chapter 2, a series of road and intersection works are either in place, under construction or in developer agreements or Section 94 plans to cater for traffic from the development of the Marsden Park Precinct, including the subject site developed for this purpose.

3.28 Therefore, the road network and appropriate intersection works will be in place to cater for the proposed development.
Summary

3.29 In summary, the main points relating to the traffic implications of the proposed development are as follows:

i) the site is within the Marsden Park Precinct, for which an indicative layout plan, development control plan and Section 94 plan have been prepared;

ii) the proposed parking provision is considered appropriate;

iii) access, servicing arrangements and internal layout will be provided in accordance with AS 2890.1:2004 and AS 2890.2 – 2002;

iv) a series of road and intersections works has been identified in previous studies to cater for development in the Marsden Park Precinct;

v) these works are either constructed or are included in developer agreements or Section 94 plans for the area;

vi) therefore, the road network and appropriate intersection works will be in place to cater for the proposed development.
Source: https://goo.gl/maps/nE9Qw3Axxp12