

FRASERS PROPERTY AUSTRALIA PTY LTD

PROJECT APPLICATION

PUTNEY RESIDENTIAL
DEVELOPMENT – PHASE 1
TRANSPORT REVIEW

MARCH 2011

COLSTON BUDD HUNT & 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: cbhk@cbhk.com.au

REF: 7967/3

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. REVIEW OF TRANSPORT EFFECTS	2



1. INTRODUCTION

- 1.1 Colston Budd Hunt and Kafes Pty Ltd has been retained by Frasers Property Australia Pty Ltd to review the transport effects of the Project Application for Phase 1 of the Putney residential development. The Putney residential development is located within the former Ryde Rehabilitation Centre site (RRCS) within the block of land bounded by Victoria Road, Charles Street, Morrison Road and Princes Street, as shown on Figure 1.
- 1.2 The Putney residential development will be developed in two stages. Stage 1 is located on the northern part of the site (with frontage to Victoria Road and Charles Street). Stage 2 is located on the southwestern part of the site (with frontage to Morrison Road and Princes Street). The relocated RRCS has been approved in the southeastern part of the site (with frontage to Morrison Road and Charles Street). Phase 1 of Stage 1 comprises 118 dwellings comprising 58 detached or semi detached dwellings (houses, terraces and townhouses) and 60 units. It is located on the southern part of the Stage 1 with frontage to Charles Street.
- 1.3 In June 2006, the Minister for Planning issued a concept plan approval for a rehabilitation facility, residential development, landscaped public and private open space and associated services and infrastructure on the RRCS site. The concept plan approval was subject to a number of conditions. The Phase 1 Project Application is for works included in the Minister for Planning's approval.
-
-

1.4 The traffic report that accompanied the concept plan (Transport Report for the Proposed Rezoning of the Royal Rehabilitation Centre Sydney, Ryde, CBHK, July 2005) concluded as follows:

The main points relating to the transport implications for future residential development of the site are as follows:

- ❑ *the site is currently readily accessible by public transport and its development would strengthen the demand for public transport services in the area. The opportunity exists to provide improved public transport facilities on Victoria and Morrison Roads;*
 - ❑ *the street network has been designed taking into account principles in AMCORD to facilitate walking and cycling;*
 - ❑ *future access to the site will be provided from Victoria Road, Morrison Road, Charles Street and Princes Street;*
 - ❑ *future peak hour traffic generation of the site would be up to some additional 465 vehicles per hour;*
 - ❑ *the road network will be able to cater for traffic generated by the proposed development of the site; and*
 - ❑ *the modest increases in traffic flows on surrounding streets as a result of future development of the site would not significantly affect the amenity of the area.*
-
-

- 1.5 The concept plan approved by the Minister for Planning was for lower number of residential developments compared to the original application. The original application was for some 900 dwellings while the approved concept plan was for some 791 dwellings. Thus the approved concept plan would have less traffic generation than the original concept plan.
- 1.6 The planning approval issued by the Minister for Planning had a number of traffic related conditions (Conditions B4 and C7). Conditions B4.1 and B4.2 required a review of a number of traffic matters within three months of the determination of Part A of Schedule 1 of Major Project No 05_0001. This review was undertaken by Traffic and Transport Associates (TTPA) – Royal Rehabilitation Centre Ryde, Rezoning for Redevelopment – Resolution of Conditions of Approval (May 2006).
- 1.7 Conditions B4.3 and B4.4 of the planning approval required a number of traffic matters to be considered prior to the lodgment of an initial application. These conditions are addressed in Chapter 2 of this report. These conditions and the initial application has been approved by the Department of Planning
- 1.8 Thus a number of traffic issues and in particular the effects of traffic generated by the proposed development were resolved in the concept plan approval. The traffic effects of the proposed development have been the subject of a number of reviews including the RTA and consultants engaged by the Department of Planning. None of these reviews objected to the proposed development. This Project Application does not increase the number dwellings compared to the approved concept plan and thus would not result in any additional traffic effects.
-
-

- 1.9 The Minister for Planning issued a project approval for the relocation of the RRCS on the south eastern portion of the site. The approval was for the following works :
- relocation of the existing RRCS services (Assistive Technology and Seating, Youth Safe, Brain Injury Association, Technical Aid for Disabled and Weemala) to new facilities;
 - construction of new internal roads and parking areas (Roads 1, 2, 3 and Road 6);
 - construction of a central parkland and recreation circle; and
 - provision of ancillary facilities (childcare centre, retail, medical consulting rooms and medical research facilities, two multi purpose courts, and a community centre).
- 1.10 The review of the transport effects of the Phase 1 Project Application are set out through the following chapter.

2. REVIEW OF TRANSPORT EFFECTS

2.1 Our review of the transport effects of the Phase 1 Project Application is set down through the following sections:

- site location and description;
- proposed development;
- response to Conditions B4.3 and B4.4;
- public transport;
- parking;
- access and internal layout;
- traffic effects;
- construction;
- consultation with authorities;
- response to Director General Requirements (DGR's); and
- summary.

Site Location and Description

2.2 The location of the site is shown in Figure 1. The site has frontage to and access from Victoria Road, Morrison Road and Princes Street. The site also has access from Charles Street.

2.3 Surrounding land use is predominantly residential. There is commercial and retail development on the northern side of Victoria Road and in Putney south of the site. There are a number of retirement villages close to the site, including one

adjacent to the site on its north-western side. The site is also close to churches, recreational areas and schools.

- 2.4 The planning approval is for residential development on the northern and western parts of the site. The existing rehabilitation centre will be consolidated and located on south eastern corner of the site, with frontage to Morrison Road. The approved residential development is located on the rest of the site. The site will be developed in a number of stages. Access to the site will be provided from Victoria Road, Princes Street, Charles Street and Morrison Road.

Proposed Development

- 2.5 The Project Application is for 118 residential dwellings and associated infrastructure (roads, footpaths, drainage works, landscaping etc) located within the southern section of Stage 1. The residential dwellings comprise 14 detached houses, 44 semi detached dwellings (terraces) and 60 units (44x2 bed and 16x3 bed). Access to individual buildings will be provided to the internal access roads. Access to Phase 1 will be via Charles Street. As part of Phase 1 the access to Victoria Road will be constructed (including the slip lane from Victoria Road). Once constructed the Victoria Road access will be used for construction access with the option of providing general traffic access once construction activity reduces to allow its safe use by general traffic.

Response to Conditions B4.3 and B4.4

- 2.6 Conditions B4.3 and B4.4 of the planning approval required a number of traffic matters to be considered prior to the lodgement of an initial application.
-
-

Condition B4.3 required a planning agreement or Section 94 contributions between the proponent, Council and other agencies to cover the following works:

- Traffic calming measures to constrain vehicle speeds in Princes Street, particularly between Victoria Road and Morrison Road;
- Traffic calming measures to constrain vehicle speeds in Charles Street;
- Provision of a site access roundabout at Charles Street between Henry Street and Parry Street;
- Implementation of the strategy identified in the Geoplan study (Tennyson/Putney Traffic Study for Ryde Council, March 2001) for Charles Street;
- Provision of site access roundabouts on Morrison Road at the intersections of Douglas Street, Payten Street and Boulton Street.

2.7 To address the above matters RRCS has entered into a planning agreement with Ryde Council to fund the following works:

- The following traffic calming measures in Princes Street:
 - ❖ roundabout at the intersection of Morrison Road and Princes Street;
 - ❖ roundabout at the intersection of Cowell Street and Princes Street; and
 - ❖ T-intersection treatment (channelisation) at intersection of Princes Street and Linley Way.
 - Thresholds and entry statements on Morrison Road and Charles Street on approaches to Putney Shopping Centre (as per the Geoplan study);
 - Traffic calming device (threshold treatment) on Charles Street between Parry Street and Kenneth Street;
-
-

- Roundabout in Charles Street at the existing site access;
- Roundabout at the proposed site access on Morrison Road; and
- Line marking on Charles Street, between Parry Street and Kenneth Street, to separate the traffic and parking lanes (as per the Geoplan study).

2.8 These measures will be implemented as development occurs on the site through a statement of commitment. A number of the measures relate to subsequent stages. The relevant works are discussed further in the report.

2.9 Condition B4.4 requires the proponent to implement the recommendations and conditions in the Sydney Regional Advisory Committee letter to the Department of Planning dated 5 October 2005 (as set out in Condition C7). In summary the key traffic matters raised by the Sydney Regional Advisory Committee were:

- Provide a left turn deceleration lane off Victoria Road at the site access to RTA requirements;
 - Undertake a road safety audit on the potential weave of traffic exiting the site onto Victoria Road to turn right into Irvine Street;
 - Provide appropriate pedestrian facilities across Victoria Road in the vicinity of the site; and
 - Layout of car parking areas to comply with relevant Australian Standards.
-
-

2.10 These matters have been addressed as follows:

- The site access from Victoria Road has been provided with a left turn deceleration lane to RTA requirements for a 60 km/h speed environment;
- A road safety audit has been undertaken of the potential weave of traffic exiting the site onto Victoria Road to turn right into Irvine Street. The road safety audit was undertaken by Winning Traffic Solutions. The audit concluded that the potential for the weave manoeuvre to occur is low and should it occur it could be undertaken safely due to gaps in westbound traffic flow along Victoria Road. The audit suggested signage to ban any u-turns at the intersection of Victoria Road and Irvine Street;
- Pedestrian facilities across Victoria Road are provided by the existing traffic signals at the intersection of Charles Street and Victoria Road. These traffic signals are located adjacent to existing bus stops on Victoria Road; and
- Car parking areas for new development on the site will be designed in accordance with relevant Australian Standards (AS2890.1-2004 and AS2890.6-2009). This could be addressed by way of a condition for each component of development on the site.

Public Transport

2.11 The site has good accessibility by public transport (bus) services in the area. Victoria Road has been identified as major transport corridor of Sydney with more than 500 bus movements past the site per day. Additional bus services operate along Morrison Road. The proposed development would increase employment

densities close to existing public transport services in the area. The proposal would therefore strengthen the existing demand for these services, supporting their efficient and viable operation. This is consistent with government aims of:

- (a) improving accessibility to employment and services by walking, cycling, and public transport;
- (b) improving the choice of transport and reducing dependence solely on cars for travel purposes;
- (c) moderating growth in the demand for travel and the distances travelled, especially by car; and
- (d) supporting the efficient and viable operation of public transport services.

Parking

2.12 Parking requirements for development within Ryde are set out in the Ryde Development Control 2010. The rates for residential development are as follows:

- detached dwellings – 2 spaces per dwelling;
- attached dwellings (dual occupancies) – 1 space per dwelling;
- units:
 - ❖ 1.2 spaces per 2 bed unit (within 400 metres of a major transport corridor (such as Victoria Road));
 - ❖ 1.4 spaces per 2 bed unit (not within 400 metres of a major transport corridor);
 - ❖ 1.6 spaces per 3 bed unit; and
 - ❖ 1 visitor space per 4 units.

-
-
- 2.13 The units as part of Phase 1 are located within 400 metres of Victoria Road. Using the above rates, the proposed development would require the following parking provision:
- 14 x detached dwellings – 28 spaces (2 per dwelling);
 - 44 x semi- detached dwellings – 44 spaces (1 per dwelling);
 - 44 x 2 bed units – 53 spaces (1.2 per dwelling);
 - 16 x 3 bed units – 25 spaces (1.6 per dwelling);
 - Visitor parking for units – 15 spaces (1 per 4 units).
- 2.14 The proposed development will provide two parking spaces per detached dwelling and one parking space per semi detached dwelling. These spaces will be provided within each lot. Parking for the units will be provided within basement car parking areas with provision of 78 residential spaces (6 accessible) and 12 residential visitor spaces (2 accessible). In addition 25 bicycle parking spaces will be provided within the basement car parks for the residential units.
- 2.15 With regard to residential visitor parking, the small shortfall (three spaces) will be provided on street in the vicinity of the buildings. The approach of providing a visitor parking on and off street will provide greater flexibility in access to parking.
- 2.16 In summary the proposed parking provision is considered appropriate.

Access and Internal Layout

- 2.17 The Project Application includes the construction of roads to service Phase 1. These include part of the north-south spine road (that connects to Victoria Road) and a number of secondary roads. No direct access will be provided to the north
-
-

south spine road from detached and attached dwellings. All access to residential development will be provided from the secondary roads. As part of Phase 1 the access to Victoria Road will be constructed (including the slip lane from Victoria Road). Once constructed the Victoria Road access will be used for construction access with the option of providing general traffic access once construction activity reduces to allow its safe use by general traffic.

- 2.18 Concept designs of the proposed internal road network have been prepared by the Meinhardt Group. Roads reserves (boundary to boundary) will typically be 15 metres wide and cater for two way traffic within a seven metre carriageway. Indented parking bays will be provided in sections of the road with a separate pedestrian path. On Road 5 there will be a shared pedestrian/cycle path (separate to the road). It is proposed to dedicate the roads to Council as per the deed of agreement.
- 2.19 Traffic flows on the internal roads will vary with Road 5 carrying peak flows of some 100 to 200 vehicles per hour (two way). Traffic flows on other roads would be less than 100 vehicles per hour. These are low traffic flows, well within the capacity of a two lane, two way road and are consistent with the roads function as local and collector roads. The roads have been designed to accommodate large rigid trucks for servicing. These traffic flows are consistent with those anticipated for the approved concept plan.
- 2.20 Pedestrians and cyclists will be catered for by the provision of pedestrian and cyclists paths on all new roads. These will provide shared pedestrian and cyclist connections within the site and to the adjacent area.
-
-

- 2.21 Access driveways to basement parking areas will be located off the internal roads. These driveways as well as the basement car parks will be designed to comply with the requirements of AS2890.1-2004 with respect to ramp grades, sight lines, parking bay dimensions and circulation aisles.
- 2.22 Parking for the detached dwellings and town houses will be provided separately for each dwelling (two spaces per dwelling) with access directly to the internal roads.
- 2.23 Overall, subject to satisfactory detailed design, the proposed access arrangements and internal layout are considered appropriate and consistent with the approved plans and/or conditions of approved concept plan.

Traffic Effects

- 2.24 The overall traffic effects including the effects of this Project Application have been previously addressed in the assessment of the concept plan approval. In Phase 1 access will be via Charles Street. This section of the report compares the traffic effects of access to Phase 1 through Charles Street compared to the concept approval.
- 2.25 The concept approval allowed for some 120 to 135 vehicles per hour (two way) to access the site via Charles Street in the weekday morning and afternoon peak periods.
- 2.26 RTA Guidelines suggest the following rates for residential development:
-
-

- ❑ detached dwellings – 0.85 vehicles per hour per dwelling for new residential development in areas where public transport accessibility is limited; and
- ❑ residential units – 0.4 to 0.5 vehicles per hour two way for one and two bedroom units and 0.5 to 0.65 vehicles for three bedroom units.

2.27 Using a rate of 0.85 vehicles per hour per detached dwellings and 0.5 vehicles per hour per for other dwellings, Phase 1 would generate some 65 vehicle per hour (two way) in the weekday morning and afternoon peak periods. In practice the actual traffic generation of these dwellings would be somewhat lower due to the good provision of public transport services in the area.

2.28 Thus the level of traffic generation for Phase 1 (using only the Charles Street access) would be less than that allowed for in the Concept Approval.

2.29 As part of Frasers Property Australia's review of the approved concept plan, investigations are being undertaken into modifying access to/from the Victoria Road. A submission has been made.

2.30 In response to requests by the community, Frasers Property Australia has a made a submission to the RTA (in November 2010) to consider the provision of traffic signals at the intersection of Victoria Road and the site access (separate to this Project Application). Provision of traffic signals would provide improved pedestrian connectivity across Victoria Road and reduce traffic from the approved development on surrounding roads (such as Morrison Road and Charles Street). RTA approval is required for the traffic signals. The study found that the while there are a number of constraints, the provision of traffic signals on Victoria Road would be feasible.

-
-
- 2.31 It is suggested that the following works be in place prior to the completion of Stage 1. These works form part of the works required as part of the RRCS redevelopment.
- Thresholds and entry statements on Morrison Road and Charles Street on approaches to Putney Shopping Centre (as per the Geoplan study);
 - Traffic calming device (threshold treatment) on Charles Street between Parry Street and Kenneth Street;
 - Roundabout in Charles Street at the existing site access (Road 1); and
 - Line marking on Charles Street, between Parry Street and Kenneth Street, to separate the traffic and parking lanes (as per the Geoplan study).

Construction

- 2.32 At this stage a builder has not been appointed for the construction of the development and hence the construction methodology, process and staging have not been defined. The preparation of the construction traffic management plan, signage detail, control of pedestrians and control and management of construction vehicles in the vicinity of the site will be the responsibility of the appointed builder, The plan will be lodged with the Department of Planning for approval prior to the commencement of demolition/construction. Set out below is an outline construction traffic management plan, noting that it is subject to refinement when a builder is appointed.
-
-

- 2.33 Access for Construction of Phase 1 will be via Charles Street (until March 2011) and then all construction access will be via Victoria Road. It is not possible for construction access to be via Victoria Road until March 2011 as the northern part of the RRCS site will still be in the possession of RRCS.
- 2.34 Until access is available from Victoria Road, construction access for large vehicles will be restricted to Charles Street (between the site access and Victoria Road) and outside of the hours 8.00am to 9.30am and 2.30pm and 4.00pm to avoid school set down and pick up periods
- 2.35 Construction activity will generally be confined to the site with employee parking provided on site within temporary car park areas. The construction access driveways will be managed and controlled by qualified site personnel. Pedestrian warning signs will be erected adjacent to the driveway. The movement of trucks entering and exiting the site will be managed and controlled by flagmen.
- 2.36 The overall principles for traffic management during construction of the development will be:
- ❑ provide a convenient and appropriate environment for pedestrians;
 - ❑ minimise effects on pedestrian movements and amenity;
 - ❑ provide appropriate safety fencing around the perimeter of the site;
 - ❑ manage and control vehicular movements to and from the site;
-
-

- ❑ restrict construction vehicle activity to designated truck routes through the area (to be identified by the appointed builder);
- ❑ construction vehicles will enter and exit the site in a forward direction;
- ❑ construction vehicles will not be permitted to queue on-street in the vicinity of the site;
- ❑ construction activity to be carried out in accordance with the approved hours of construction;
- ❑ maintain safety for workers;
- ❑ provide convenient and appropriate access to the site for construction traffic; and
- ❑ manage and control vehicle activity in the vicinity of the site.

Consultation with Authorities

2.37 Before and after the Minister for Planning's approval for redevelopment of the RRCS site consultation was undertaken with Ryde Council and the RTA regarding traffic aspects of the proposed development. These included:

- ❑ Consideration of the proposed development by the SRDAC prior to the approval of the proposed development;

- Meetings and discussions with Council officers in early 2007 regarding traffic aspects of the proposed development;
- Meeting between representatives of the applicant, Department of Planning, RTA and Council in April 2007 to discuss traffic aspects of the proposed development;
- Meeting with RTA regarding proposed traffic signals on Victoria Road (September 2010); and
- Submission of a proposal for traffic signals with the RTA in November 2010.

Response to Director General Requirements (DGR's)

2.38 Our response to the DGR's set out below. In general the car parking, transport and accessibility impacts of the proposed development have been addressed in the concept approval. The specific matters raised in the DGR's are set out below.

The potential impacts on the on the local road network and any required road/intersection upgrades, in particular, the intersections identified in the RTA response dated 25 January 2011.

2.39 The overall traffic effects including the effects of this Project Application have been previously addressed in the assessment of the concept plan approval, including an assessment of the intersections identified by the RTA. As part of the concept approval, a number of road improvements have been included in the Statement of Commitments.

An estimate of the trips generated by the proposed development, including an assessment of existing and proposed public transport, pedestrian and cycle movements within the vicinity of the subject site and any measures to address increased demand on existing public transport, walking or cycling infrastructure.

- 2.40 An assessment of public transport, walking or cycling movements of this Project Application has been previously addressed in the assessment of the concept plan approval. As part of the concept approval, a number of measures to improve accessibility to public transport, walking or cycling infrastructure have been included in the Statement of Commitments.

Opportunities to improve pedestrians through the site

- 2.41 Pedestrians and cyclists will be catered for by the provision of pedestrian and cyclists paths on all new roads. These will provide shared pedestrian and cyclist connections within the site and to the adjacent area (Charles Street, Morrison Road, Princes Street and Victoria Road).

Appropriate on-site parking provision having regard to Council and RTA Guidelines and availability of public transport (Note: the Department supports reduced car parking in areas well serviced by public transport).

- 2.42 Parking for detached dwellings and units will be provided in accordance with the requirements of Ryde DCP 2010.
- 2.43 With regard to the RTA response of 25 January 2011, Points 1, 2 and 3 of the letter are covered in the above responses. Point 4 (service vehicles) is not
-
-

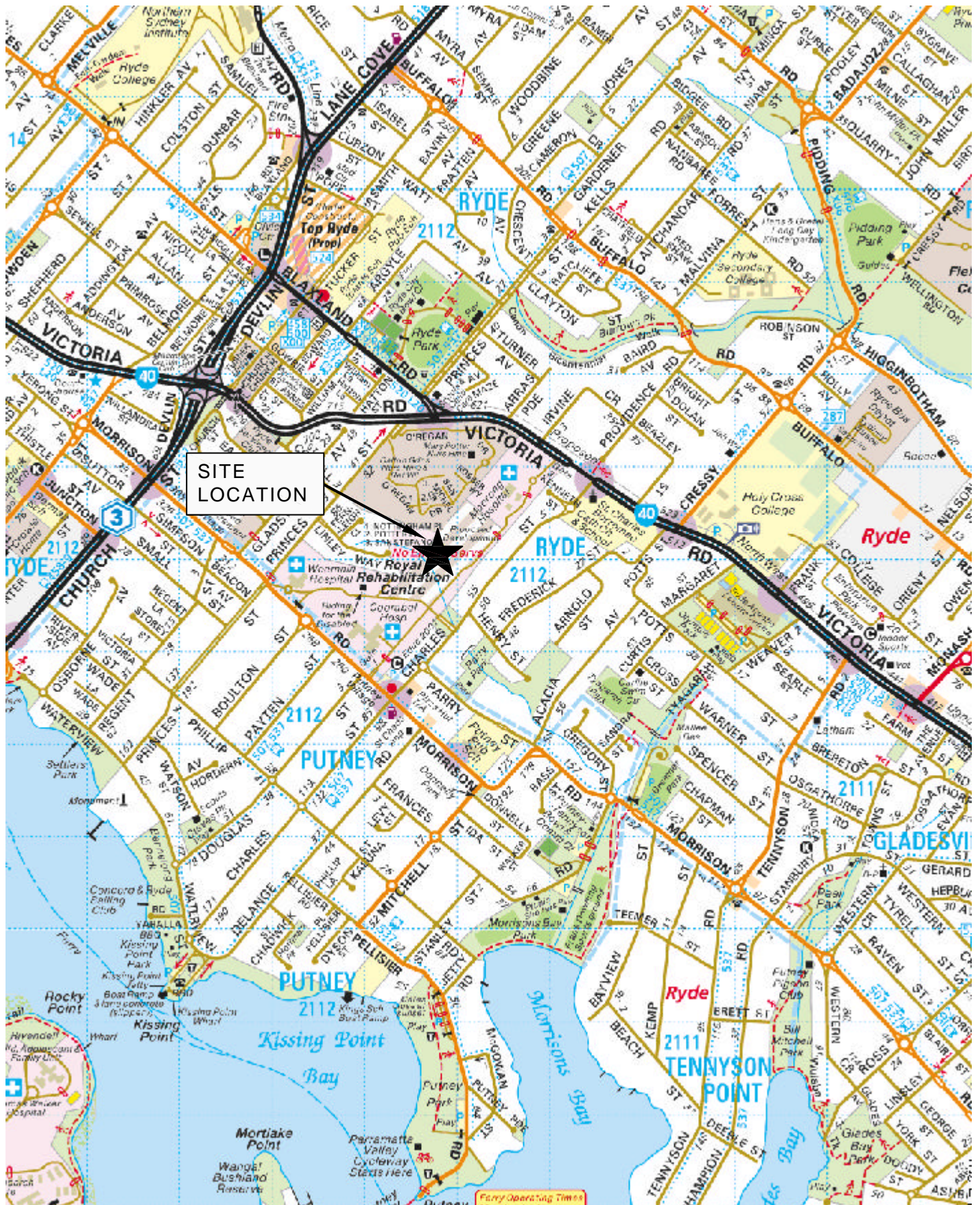
relevant as the proposal is for residential development and Point 5 (construction traffic management) has been addressed in this report.

- 2.44 With regard to the Department of Transport response of 15 December 2010, Points 1, 2, 3 and 4 of the letter are covered in the above responses. Point 5 (work place travel plan) is not relevant as the proposal is for residential development and Point 6 (construction traffic management) has been addressed in this report.

Summary

- 2.45 In summary, the main points relating to the review of the transport effects of the Project Application are as follows:
- i) the Stage 1 Project Application is for some 101 dwellings with a mix of residential units, townhouses and detached dwellings;
 - ii) Conditions B4.3 and B4.4 have been addressed as part of the Project Application;
 - iii) the site is currently readily accessible by public transport and its development would strengthen the demand for public transport services in the area;
 - iv) parking has been provided in accordance with the requirements of Ryde DCP 2010 with some sharing of visitor parking on and off street;
-
-

- v) access arrangements and internal layout within the proposed car parking areas will be provided in accordance with the Australia Standard for Parking Facilities (AS2890.1-2004);
 - vi) traffic generated by Phase 1 through the Charles Street access will be less than that allowed for in the concept approval;
 - vii) the following works be in place prior to the completion of Phase 1. These works form part of the works required as part of the RRCS redevelopment;
 - Thresholds and entry statements on Morrison Road and Charles Street on approaches to Putney Shopping Centre (as per the Geoplan study);
 - Traffic calming device (threshold treatment) on Charles Street between Parry Street and Kenneth Street;
 - Roundabout in Charles Street at the existing site access (Road 1); and
 - Line marking on Charles Street, between Parry Street and Kenneth Street, to separate the traffic and parking lanes (as per the Geoplan study).
 - viii) the preparation of the construction traffic management plan, signage detail, control of pedestrians and control and management of construction vehicles in the vicinity of the site will be the responsibility of the appointed builder and has been included in the Statement of Commitments; and
 - ix) the DGR's requirements have been addressed.
-
-



Location Plan