

FRASERS PROPERTY AUSTRALIA PTY LTD

SECTION 75W APPLICATION

PUTNEY RESIDENTIAL  
DEVELOPMENT – STAGE 2  
TRANSPORT REVIEW

DECEMBER 2013

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## I. INTRODUCTION

- I.1 Colston Budd Hunt and Kafes Pty Ltd has been retained by Frasers Property Australia Pty Ltd to review the transport effects of the Section 75W to modify the approved concept plan for the subject site. 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 I.
- I.2 The Putney residential development will be developed in two stages. Stage 1 (447 dwellings) is located on the northern part of the site (with frontage to Victoria Road and Charles Street) and has been approved and is under construction. The majority of residents are expected to start moving into Stage 1 early in 2014.
- I.3 Stage 2 is located on the southwestern part of the site (with frontage to Morrison Road and Princes Street). The relocated RRCS is currently under construction in the southeastern part of the site (with frontage to Morrison Road and Charles Street).
- I.4 The Section 75W application relates to changes to Stage 2. With respect to transport the proposed changes include:
- deletion of the road access to Princes Street (although one block of units will have direct driveway access to Princes Street);

- ❑ modifications to the alignment of the internal roads in order to better accommodate development within the site; and
- ❑ changes to the mix of units. In Stage 2 there will be up to 344 (a reduction of 51 dwellings) comprising:
  - 304 apartments (a reduction of 42 apartments); and
  - 40 detached dwellings (a reduction of 9 dwellings).

1.5 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.

1.6 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;*
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- ❑ *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.*

1.7 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.

1.8 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).

1.9 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

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conditions are addressed in Chapter 2 of this report. These conditions and the initial application has been approved by the Department of Planning.

- I.10 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 Section 75W modification does not increase the number dwellings compared to the approved concept plan and thus would not result in any additional traffic effects.
- I.11 The Minister for Planning issued a project approval for the relocation of the RRCS on the south eastern portion of the site (most which is either constructed or under construction). 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).
- I.12 The review of the transport effects of the S75W for the approved concept plan is set out through the following chapter.
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## 2. REVIEW OF TRANSPORT EFFECTS

2.1 Our review of the transport effects of the Section 75W for the approved concept plan 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; 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 has been consolidated and relocated to the south eastern corner of the site, with frontage to Morrison Road. 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 (limited), Charles Street and Morrison Road.

#### Proposed Development

- 2.5 Stage 2 comprises 344 residential dwellings (40 detached dwellings and 304 apartments). This is a reduction of 51 dwellings (9 detached dwellings and 42 apartments) compared to original concept approval. Access to Stage 2 will be via Morrison Road (as per the approved concept plan) and to Charles Street/Victoria Road (via the Stage 1 road network). Stage 2 will have limited access to Princes Street (driveway access to basement parking for an apartment block). There will be no road access to Princes Street.

#### 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;
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- ❑ 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 entered into a planning agreement with Ryde Council to fund a number of works. RRCS and Frasers have reached agreement for Frasers to deliver some of the works. The identified works are as follows:

- ❑ The following traffic calming measures in Princes Street:
    - ❖ roundabout at the intersection of Morrison Road and Princes Street (Frasers - Stage 2);
    - ❖ roundabout at the intersection of Cowell Street and Princes Street (Frasers – Stage 2); and
    - ❖ T-intersection treatment (channelisation) at intersection of Princes Street and Linley Way (Frasers - Stage 2).
  - ❑ Thresholds and entry statements on Morrison Road and Charles Street on approaches to Putney Shopping Centre (as per the Geoplan study) (Frasers);
  - ❑ Traffic calming device (threshold treatment) on Charles Street between Parry Street and Kenneth Street (Frasers);
  - ❑ Roundabout in Charles Street at the existing site access (RRCS);
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- ❑ Roundabout at the proposed site access on Morrison Road (RRCS); and
- ❑ Line marking on Charles Street, between Parry Street and Kenneth Street, to separate the traffic and parking lanes (as per the Geoplan study) (Frasers).

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 required 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
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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:
  - ❖ 0.6 to 1.0 spaces per 1 bed unit;
  - ❖ 0.9 to 1.2 spaces per 2 bed unit;
  - ❖ 1.4 to 1.6 spaces per 3 bed unit; and
  - ❖ 1 visitor space per 5 units.

2.13 For units, the DCP provides a range with lower rates appropriate for locations with good access to public transport. 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

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be provided within the range set out in DCP 2010 and located in basement car parking areas. In addition, bicycle parking spaces will be provided within the basement car parks for the residential units.

- 2.14 With regard to residential visitor parking, this will generally be provided within the basement car parks. The opportunity for some visitor parking to be provided on street in the vicinity of the buildings will be investigated. The approach of providing a visitor parking on and off street will provide greater flexibility in access to parking.

#### Access and Internal Layout

- 2.15 The Section 75W Application includes the layout of roads to service Stage 2. Access to Stage 2 will be from Road 6 and Road 2 with a spine road travelling south west from Road 2 providing access to the various unit blocks. The new roads will be of as a similar design as the existing roads in Stage 1, providing for two traffic lanes, indented parking bays and a separate footpath. As the new access roads will be no through road, appropriate turning areas will be provided at the ends to allow cars and service vehicles (waste trucks and delivery vehicles to turn around). No road access will be provided to Princes Street, although one unit block will have direct driveway access to Princes Street from its basement car park.
- 2.16 Traffic flows on the new internal roads will vary with peak flows of some 100 to 200 vehicles per hour (two way). 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 roads. The roads have been designed to accommodate large rigid trucks for
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servicing. These traffic flows are consistent with those anticipated for the approved concept plan.

- 2.17 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.
- 2.18 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.
- 2.19 Parking for the detached dwellings and town houses will be provided separately for each dwelling (one or two spaces per dwelling) with access directly to the internal roads.
- 2.20 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

- 2.21 The overall traffic effects including the effects of the Section 75W Application have been previously addressed in the assessment of the concept plan approval. The major changes in the S75W are the reduction in dwellings (from 395 to 344) and deletion of the road access to Princes Street. These changes will result in some changes in traffic flow along Princes Street and Morrison Road compared to the original concept approval.
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2.22 RMS 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.

2.23 These rates were used to assess the traffic effects of the original concept approval. Using a rate of 0.85 vehicles per hour per detached dwellings and 0.5 vehicles per hour per for other dwellings, the revised Stage 2 would generate some 190 vehicle per hour (two way) in the weekday morning and afternoon peak periods. This is some 25 vehicles per hour (two way) less than the approved Stage 2. The removal of the road access to Princes Street in the revised Stage 2 would result in a redistribution of traffic from the site. Table 2.1 sets out the changes to traffic flows on Princes Street, Morrison Road and Charles Street as a result of change in development size and deletion of the Princes Street access as part of the revised Stage 2 (compared to the approved Stage 2).

<b>Table 2.1                      Change in Traffic Flows between Revised and Approved Stage 2 Development (vehicles per hour, two way)</b>		
Road/Location	AM	PM
Morrison Road		
- west of Charles St	-8	-10
- east of Princes St	+8	+12
- west of Princes St	-12	-17
Charles Street		
- north of Morrison Rd	-8	-8
Princes Street		

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- north of Morrison Rd	-20	-38
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- 2.24 Examination of Table 2.1 reveals that generally there would be a minor reduction in traffic flows on the surrounding road network (mainly due to the reduction in dwellings in Stage 2). The exceptions are Princes Street (where there would be a moderate decrease due to the removal of the road access) and Morrison Road (between Princes Street and Road 6), where there would be a minor increase as traffic that would have used the Princes Street access is redistributed to Morrison Road. Overall the revised Stage 2 proposal would result in slightly lower traffic impacts compared to the original concept approval.
- 2.25 In response to requests by the community, Frasers Property Australia a made a submission to the RMS (formerly 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.
- 2.26 RMS reviewed the submission and undertook a separate review. RMS concluded that it did not support the provision of traffic signals at the site access on Victoria Road. Nonetheless in response to community concerns Frasers modified the Stage 1 approval to construct a higher proportion of the allowable dwellings on the site on the northern part of the site in order to direct more traffic through the Victoria Road access and less traffic onto Charles Street and Morrison Roads.
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### Construction

- 2.27 At this stage a builder has not been appointed for the construction of Stage 2 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 relevant approval authority 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.
- 2.28 Access for Construction of Stage 2 will be via Morrison Road (to/from Church Street). 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.
- 2.29 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;
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- ❑ 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

- 2.30 Before and after the Minister for Planning's approval for redevelopment of the RRCS site consultation was undertaken with Ryde Council and the RMS 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.

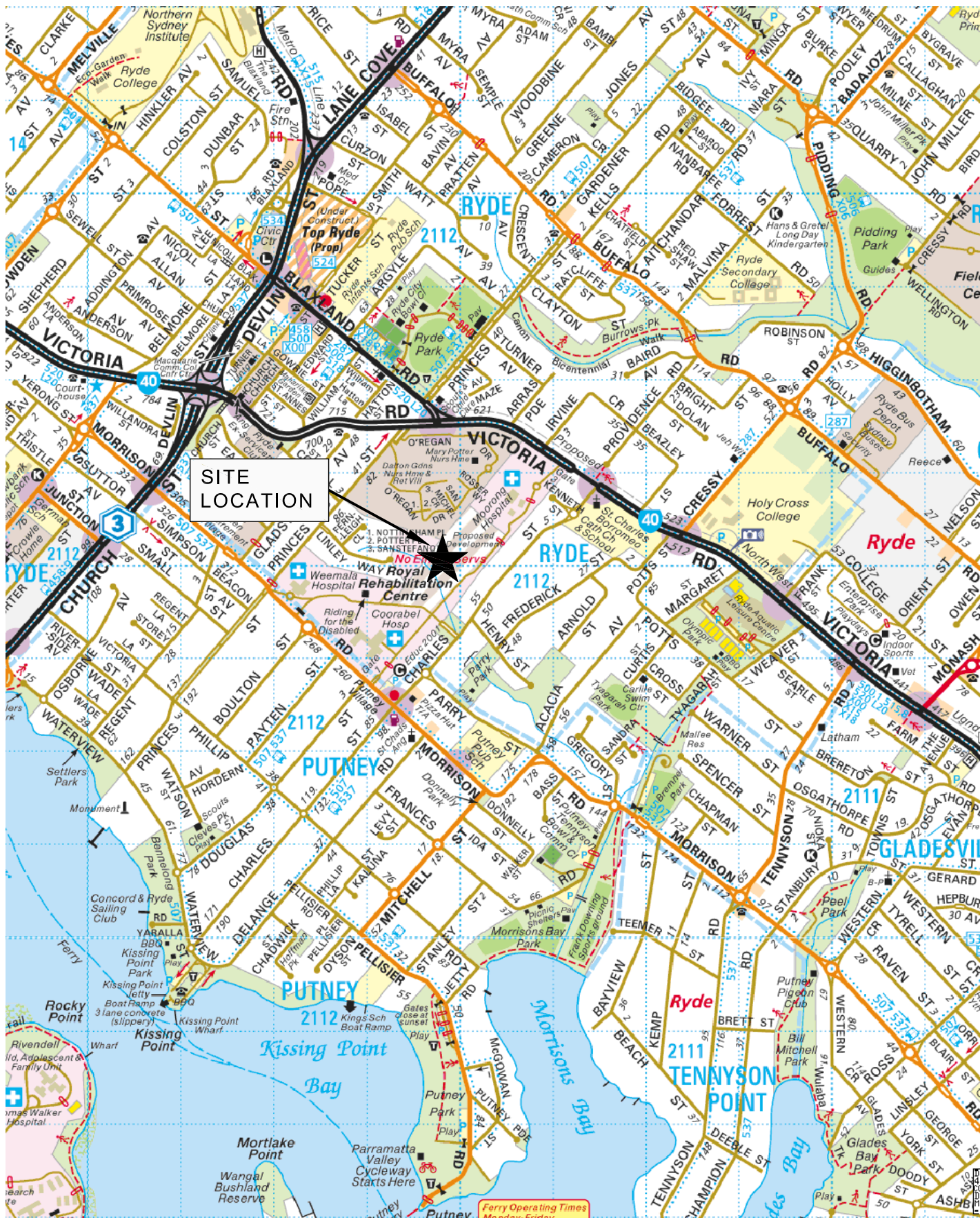
### Summary

2.31 In summary, the main points relating to the review of the transport effects of the Section 75W Application are as follows:

- i) the Section 75W application relates to changes with Stage 2. With respect to traffic the changes relate to reduction in the number of dwellings, modifications to internal road network and deletion of road access to Princes Street;
- ii) Conditions B4.3 and B4.4 have been addressed as part of the Section 75W modification;

- 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 will be 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 Stage 2 will be slightly lower to that allowed for in the concept approval;
- vii) the following agreed works will be in place prior to the completion of Stage 2.
  - ❑ 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).
- 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 will be the subject of future applications for development.



## Location Plan