

Halcrow MWT

Proposed Mixed Use Hotel, Residential and Retail
Development

33 Cross St, Double Bay

Transport and Accessibility Report - Final Report



11 February 2009

Ashington

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Transport and Accessibility Report

This report has been issued and amended as follows:

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1 Introduction

The Stamford Plaza Hotel (formerly the Ritz Carlton Hotel) at 33 Cross Street, Double Bay has been a prominent tourist landmark since its development in the late 1980s. It has hosted American Presidents and other world leaders, and celebrities around the world.

In recent years the hotel has been experiencing low occupancy rates. Similarly, the retail arcade on the ground floor, together with the general retail trading within the wider Double Bay area, has been negatively impacted up on by the expansion of the Bondi Junction centre. Therefore, the hotel is scheduled to cease operation in March 2009.

Ashington has acquired the site, and proposes to redevelop it into a mixed use development incorporating hotel residences, a five star boutique hotel, specialty shops, cafes and restaurants. The existing building is proposed to be demolished and replaced with a new building comprising two 14 storey building elements with a podium of 4-5 storeys. The two car level basement car park is proposed to be retained.

The proposed development has been granted Major Project status by the Department of Planning (DoP) under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act 1979).

Halcrow MWT has been engaged to prepare a transport and accessibility study to accompany the Environmental Assessment for the proposed development. This transport study has been prepared consistent with the requirements set out in the DoP's Director-General Requirements for the Environmental Assessment (see Section 6).

The remainder of this report is set out as follows:

- Chapter 2 discusses the existing traffic conditions;
- Chapter 3 describes the proposed development;
- Chapter 4 examines the traffic generation and its implications;
- Chapter 5 assesses the parking requirements;
- Chapter 6 addresses the Director-General's requirements; and
- Chapter 7 presents the conclusions of the assessment.

2 Existing Conditions

2.1 *Site Description*

The development site is located at 33 Cross Street, Double Bay in the centre of the Double Bay retail area as indicated on **Figure 1**. It is within the local government area of Woollahra Municipal Council (WMC). It is approximately 3.5km east of the Sydney CBD area. The site is legally described as Lot 1 DP 793525.

The site is currently occupied by the Stamford Plaza Hotel, which is a 144-room luxury hotel. The site is generally surrounded by retail and commercial uses to the east, south and west. To the north are well established low density residential dwellings that front onto William Street, and further to the north is Sydney Harbour.

Existing vehicular access to the basement car parking area is via a right of way driveway through the adjacent Georges Centre to the west of the site at 45 Cross Street, Double Bay.

2.2 *Road Network*

The local road network that serves the site comprises:

- New South Head Road;
- William Street;
- Ocean Avenue;
- Cross Street; and
- Bay Street.

New South Head Road is the principal east-west arterial road through the Double Bay area. It is configured as a six-lane divided road with morning and evening peak period clearway restrictions in place in the westbound and eastbound directions respectively. It is a declared State Road under the control and maintenance of the RTA. New South Head Road has a posted speed limit of 60km/hr. Intersections along New South Head Road are generally provided as signalised intersections with some turn bans at selected intersections to improve the efficiency of traffic flows along New South Head Road.

William Street and Ocean Avenue are regional roads with the Council responsible for their maintenance. These roads generally have one traffic lane plus one parking lane in each direction with a posted speed limit of 50km/hr. They function as collector roads.

Cross Street and Bay Street are local two-way roads providing access to properties along them. Cross Street connects with New South Head Road at its eastern end and Ocean Avenue at the western end. Bay Street connects with New South Head Road at the southern end at a priority controlled intersection permitting only left-in and left-out movements from/to New South Head Road. At the northern end, Bay Street intersects with William Street under the control of a four-way roundabout. These roads generally have on-street parking on both sides (Cross Street has metered parking) with a posted speed limit of 50km/hr.

2.3 *Traffic Flows*

Given that the Double Bay centre is predominately retail use and New South Head Road an arterial road carrying substantially high volume of commuter traffic, the critical peak period for road capacity in the area is the Thursday evening peak period. This is when the retail traffic overlaps with the commuter traffic. The Saturday late morning/early afternoon period is also important due to recreational and retail traffic.

Intersection counts of three nearby intersections were undertaken for the above two peak periods on the Saturday 6 December (from 11:00am to 2:00pm) and Thursday 11 December 2008 (from 4:00pm to 6:30pm). The surveys were conducted at the following intersections:

- New South Head Road-Cross Street;
- Cross Street-Ocean Avenue; and
- William Street-Bay Street.

Figure 2 shows the existing Thursday evening and Saturday morning peak hour intersection flows. **Table 2.1** summarises the existing mid block traffic flows near the above three intersections.

Table 2.1 Existing Peak Hour Mid Block Two-way Flows

Locations	Thursday Evening	Saturday Morning
Bay St, South of William St	331	245
Cross St, North of New South Head Rd	519	565
Cross St, South of Ocean Av	337	348
New South Head Rd, East of Cross St	2,318	2,585
Ocean Ave, West of Cross St	1,076	1,138
William St, East of Bay St	957	868

From **Table 2.1**, it can be seen that New South Head Road carries heavy traffic flows with about 2,400 vehicles per hour (vph). Ocean Avenue has a peak hour flow of about 1,100 vph while William Street has about 900 vph.

Peak hour flows on Cross Street, near New South Head Road are around 550 vph while near Ocean Avenue they are about 350 vph. This reflects the fact that the Ocean Avenue end of Cross Street carries predominately residential traffic while the New South Head Road end carries significant retail traffic.

Bay Street, being a residential street carries approximately 250 to 330 vph.

The RTA guidelines indicate that collector roads generally have hourly flow in the range of 200 to 1,000 vph while for local streets (in purely residential area), the desirable limit is about 500 vph. Traffic flows in **Table 2.1** indicate that the roads in the area are generally within these limits.

2.4 Parking Surveys

In addition to the intersection counts, parking surveys were also conducted of the parking area beneath the Stamford Plaza Hotel, as well as the Cross Street public car park. The parking surveys were conducted over three separate days (Friday 5, Saturday 6 and Thursday 11 December 2008). The surveys were conducted from 12:00pm to 12:00am for Friday and Saturday, and for Thursday it was from 4:00pm to 10:00pm.

The results are presented in **Figure 3**.

At the Stamford Plaza car park the peak usage was from 1:00pm to 2:00pm on a weekday while on Saturday it was 8:00pm to 9:00pm. The car park utilisation peaked at

about 80 per cent of the capacity during weekday while on Saturday it was about 60 per cent.

Similarly for the Cross Street car park the peak usage was from 12:00pm to 1:00pm for both the weekday and Saturday. The Cross Street car park has similar utilisation ratio as the Stamford Plaza car park i.e. about 80 per cent on weekday and about 50 per cent on Saturday.

The results are generally consistent with those in the *Woollahra Traffic and Transport Study* prepared by GHD in February 2000 for Woollahra Council.

2.5 *Public Transport*

The subject site is served by scheduled bus services along New South Head Road to the City and ferry services to Circular Quay. Rail services are available at Edgecliff Railway Station, a moderate walk or short bus ride away.

2.5.1 *Buses*

Sydney Buses operates a number of high frequency bus services along New South Head Road near the site. These are summarised in **Table 2.2**. **Figure 4** presents a map of the existing bus routes in the general vicinity of the subject site.

Table 2.2 Bus Service Summary

Route Number	Service	Type of Service	Frequency Inbound [§]	Frequency Outbound [§]
323	City – Dover Heights	Weekday Peak Hour	6 (0)	0 (4)
324	City/Circular Quay – Watsons Bay	Daily Full Time	8 (8)	11 (9)
L24	City/Circular Quay – Watsons Bay	Weekday Morning	2 (0)	0 (0)
325	City/Circular Quay – Watsons Bay	Daily Full Time	7 (5)	4 (7)
326	City/Circular Quay – Bondi Junction	Daily Full Time	5 (6)	5 (6)
327	City/Circular Quay – Bondi Junction	Daily Full Time	5 (6)	3 (6)

§ – numbers outside of parenthesis denote the number of services in the weekday morning peak period between the hours of 6:00am and 9:00am, and numbers inside parenthesis denote the number of services in the weekday evening peak period between the hours of 4:00pm to 7:00pm

From **Table 2.2** it will be seen that the Double Bay area is well served by buses.

2.5.2 *Ferry*

Sydney Ferries operates a limited ferry service between Circular Quay and Watson Bay. **Table 2.3** summarises the number services that stops at Double Ferry.

Table 2.3 Double Bay Ferry Services

Peak Periods	Inbound Services	Outbound Services
Morning Peak (6:00am-9:00am)	3	0
Evening Peak (4:00pm-7:00pm)	0	5

2.6 *Pedestrian and Cycle Network*

The Double Bay Centre is characterised by its intricate network of pedestrian walkways making it a highly permeable centre. Within the centre, pedestrian footpaths are generally available on both sides of the roads along both major and minor roads. Pedestrian ambience along the streets is reinforced by the continuous shop fronts.

There are also a number of arcades and open air connections to complement the on-street pedestrian network.

Pedestrian amenity in the centre is further reinforced by signals controlled crossings at signalised intersections along New South Head Road.

The site has an existing through site pedestrian link connecting Cross Street to Transvaal Avenue to the east and William Street to the north. This would be improved in the proposed development.

Commuter bicycle routes in the Double Bay area consist of the east-west route that travels along New South Head Road between Watson Bay and the City, and the north-south route along Cross Street/Bellevue Road providing access to Bellevue Hill. The east-west route travels along New South Head Road, but in the vicinity of the Double Bay centre it diverts to travel along Bay Street/William Street and joins New South Head Road on the other side.

Bicycle paths along these routes are generally within the traffic lane, cyclists do not have dedicated bicycle lanes.

Within Double Bay most roads are suitable for use by cyclists due to low travel speeds on the road.

Figure 5 shows the existing cycle network in the Double Bay area.

2.7 *Existing Development on the Site*

The current use on the site is a five-star luxury hotel with a retail arcade on the ground floor. This is contained within a six storey structure. The existing use comprises:

- 144 hotel rooms;
- 1,900m² of function room; and
- 1,543m² of retail (specialty shops generally high end fashion).

The function rooms include both a ballroom and various smaller rooms.

On-site parking is provided within two basement levels directly beneath the hotel. There are some 180 spaces over the two levels.

The access to the basement car parking area is shared with the Georges Centre which is a five-level mixed use building. This development has 20 spaces located within the Georges Centre car park.

2.8 *Intersection Analysis*

Intersection analysis of the three nearby intersections was conducted using the SIDRA intersection analysis program. The analysis was conducted using existing surveyed flows presented in **Figure 2**. The results of the intersection analysis for existing traffic condition are presented in **Table 2.4**.

Table 2.4 Existing Condition Intersection Operation

Intersection	Ints Control Type	Peak Period	Ints Delays (Sec)	Level of Service
New South Head Rd-Cross St	Signals	Thursday	54	D
	Signals	Saturday	31	C
Cross St-Ocean Ave	Priority	Thursday	19	B
	Priority	Saturday	20	B
Bay St-William St	Roundabout	Thursday	14	A
	Roundabout	Saturday	13	A

Note: Level of service A provides good intersection operation, level of service F indicates intersection is operating over capacity while level of service D is the minimum desirable long term peak period operating condition. At signalised intersections, the average intersection delay is usually reported as the volume weighted average delay while at roundabout and priority controlled intersections, the average delay for the worst movement is usually reported.

The results indicate that the assessed intersections currently operate acceptably at level of service D or better in both peak periods.

At the intersection of New South Head Road with Cross Street, the right turn movement from New South Head Road to Kiaora Road and Bellevue Road operates at near capacity. However, the overall intersection performance is within reasonable limit.

3 Proposed Development

3.1 *The Proposed Development*

The development application seeks approval for the demolition of the existing building from the ground floor up (while retaining the two lower basement car parking levels) to construct a mixed use development. The existing porte-cochere together with the on-grade loading area would also be demolished to allow activation of the Cross Street frontages of the site.

The proposed mixed use development comprises the following elements:

- a boutique hotel with 66 rooms with restaurant and bar;
- 1,081m² retail floor area;
- 295m² restaurant; and
- 39 residential apartments as follows:
 - eight 1-bedroom units;
 - 12 2-bedroom units; and
 - 19 3-bedroom units.

The two basement levels would be retained for car parking plus mechanical plants and other services.

Appendix A provides proposed layout plans for the two basement levels.

Due to site constraints, it is proposed to provide a total of 107 spaces over two levels. The upper level would have 49 spaces and the lower level would have 58 spaces. The upper level parking area would generally be reserved for residential tenant parking within a secured area and some visitor parking area, while the lower basement would operate as a valet car park for the hotel guests and some additional parking for the residential tenants.

3.2 *Proposed Internal Layout*

The existing shared car park access through the adjacent Georges Centre from Cross Street would be retained.

The existing basement parking area would be modified with some new columns added to support the new structures above. The parking spaces would be reconfigured to allow area for mechanical plants and other services.

In accordance with established sustainability principles, it is proposed to retain the basement volume intact. This would reduce the extent of demolition, excavation and watertable interference that might otherwise occur. It would also reduce the construction time and hence the duration of the construction impacts.

Having said that, the existing building pre-dates the current version of the Australian Standard for parking and the existing column layout does not lend itself to an efficient parking layout. Nevertheless, the internal arrangement of the parking layout is proposed to comply generally with the Australian Standard for car parking AS2890.1:2004.

A new ramp is proposed to connect the two parking levels and existing sloping floor slabs are proposed to be replaced by flat slabs. This new ramp is proposed to be replaced as two one-way ramps located close to the entry to the car park. This is also proposed to comply with AS2890.1.

3.3 *Service Vehicle Access*

The basement car parking levels have a vertical clearance of 2.1m at the entrance to the car park, as such this would restrict the size of vehicle that could access the site. Therefore, it is proposed that the site be serviced by vehicles no larger than vans or low clearance small trucks.

Larger trucks would be required to service the site from Cross Street. It is proposed that the Cross Street frontage of the site (between the existing cross-overs of the porte-cochere) to be signed as “no parking” to allow for occasional loading needs of large trucks and for hotel guest and customer drop-offs and pick-ups. This facility would be of general benefit to the local area and operating under a “no parking” control could serve more visitors than it would if used for regular kerbside parking.

The site frontage is currently allocated as a bus zone for the Sydney Explorer Bus plus one metered on-street parking space. With the removal of the porte-cochere driveways, the available length would be about 50m. With the bus zone and on-street parking retained, a length of about 20m would be available for a drop-off/pick-up zone. This would allow for three standard car spaces or a loading area for a large truck.

3.4 *Proposed Pedestrians Access*

As part of the proposed redevelopment of the site, a public plaza surrounded by new retail tenancies would be created in the centre of the site. The public plaza is proposed to have a number of pedestrian access points connecting it to the surrounding pedestrian network. To the north, the new public plaza is to be connected through to Galbraith Walkway and William Street. To the east the plaza is to be connected to Tansvaal Avenue via a laneway. The hotel lobby on the western side of the site would be connected to the Georges Centre via a retail arcade. In addition, pedestrian access is proposed at two locations from Cross Street.

The proposed pedestrian access points would significantly improve permeability of the site.

3.5 *Proposed Bicycle Facility*

Woollahra Council does not have any specific requirement for bicycle parking. However, it is proposed to provide 30 parking spaces for bicycles. Approximately 25 of these spaces would be located on the upper basement level for use of tenants and visitors. There would be an additional five bicycle racks on the ground floor for easy access by visitors.

4 Traffic Assessment

4.1 *Proposed Use*

The RTA's *Guide to Traffic Generating Developments*, 2002 provide traffic generation rates for the various land uses. The applicable rates for this development are summarised in **Table 4.1**.

Table 4.1 RTA Peak Hour Trip Generation Rates

Land Use	Thursday Evening	Saturday Morning
Residential Unit	0.5 trips per unit	0.25 trips per unit
Retail	5.9 trips per 100m ²	7.5 trips per 100m ²
Restaurant	5 trips per 100m ² GFA	5 trips per 100m ² GFA
5-Star Hotel	0.26 trips per room	0.26 trips per room

The entire Double Bay centre would operate as a combined retail centre (existing retail area of about 23,000m²), and as such traffic generated by the retail use has been estimated using generation rate relating to a retail centre with a floor area ranging from 20,000 to 30,000m².

Using the above traffic generation rates, the traffic generation potential of the proposed development was compared with that of the existing use. This comparison is presented in **Table 4.2**.

From **Table 4.2**, it can be seen that the existing use would generate about 128 vph during the Thursday evening peak and approximately 153 vph during the Saturday morning peak period.

It is noted that these estimates do not include an allowance for the traffic generation of the function rooms because that would be highly variable from day to day. At peak usage, the function rooms have the potential to double the peak hourly traffic generation of the existing development.

Table 4.2 indicates that the proposed use would generate peak hour traffic in the order of 116 vph and 123 vph during the Thursday evening and Saturday morning peak periods respectively.

Table 4.2 Traffic Generation Potential (Existing Use Vs Proposed Use)

	Existing Use		Propose Use	
	Floor Space/Units	Trips per Hour	Floor Space/Units	Trips per Hour
Thursday Evening				
- Residential Unit	-	-	39 Units	20
- Retail	1,543m ²	91	1,081m ²	64
- Restaurant	-	-	295m ²	15
- 5-Star Hotel	144 Rooms	37	66 Rooms	17
<i>Total</i>		<i>128</i>		<i>116</i>
<i>Net Change</i>				<i>-12</i>
Saturday Morning				
- Residential Unit	-	-	39 Units	10
- Retail	1,543m ²	116	1,081m ²	81
- Restaurant	-	-	295m ²	15
- 5-Star Hotel	144 Rooms	37	66 Rooms	17
<i>Total</i>		<i>153</i>		<i>123</i>
<i>Net Change</i>				<i>-30</i>

Therefore, the proposed development is expected to generate somewhat less traffic than what the existing use would generate if it was operating at full capacity. It is this apparent that the proposed development would not have any adverse impacts on the operations of the surrounding road network.

4.2 Construction Traffic

Construction is expected to take place over a period of two years. There will be minimal excavation, but there will be a need to remove demolition material and bring in construction materials, fittings and equipment.

It is anticipated that one or more tower cranes would be erected on site and that a construction zone would be provided along the Cross Street frontage of the site. Trucks would arrive from the west on New South Head Road, turn left into Bay Street and then right into Cross Street. They would exit from Cross Street then turn right into New South Head Road to return to the west.

During construction appropriate hoardings and measures to protect pedestrians and vehicles would be implemented. There is nothing intrinsically difficult with the construction of a new building on the site, but naturally appropriate measures to protect the public will need to be implemented.

A detailed construction traffic management plan will be prepared once a builder is appointed. This will allow the construction management plan to reflect the actual staging of development as it is proposed. It would be appropriate that a condition of consent be imposed requiring such a plan to be agreed with the Woollahra Local Traffic Committee before the commencement of construction.

5 Parking Assessment

5.1 *Previous Approval Consent Conditions*

In relation to on-site parking provision, the consent conditions granted by Woollahra Council for the existing use (Development Application No. 88/176) state that:

2. *The provision of 223 car parking spaces on-site and further, stack parking by a valet service being provided if required.*
40. *That in lieu of the provision of 50 car parking spaces on site, the Council accept a monetary contribution,...and in any event the contribution being paid prior to the release of approved building plans.*

The plans of the basement levels prepared by Leffler Simes Architects and approved by Woollahra Council (approval date 11 April 1990) indicate there are approximately 180 car parking spaces have been provided within these two basement levels. Thus credit for the additional parking spaces is attributable to the site.

5.2 *On-Site Parking Demand*

The Double Bay Centre Development Control Plan 2002 (and the Woollahra Development Control Plan for Off-Street Parking Provision and Servicing Facilities where applicable) specify the following minimum parking provision rates for uses proposed in the development:

- retail– 3.5 spaces per 100m² GFA;
- restaurant– 15 spaces per 100m² GFA;
- hotel – 1 space per 2 rooms;
- residential 1-Bed – 0.5 spaces per unit;
- residential 2-Bed – 1 spaces per unit;
- residential 3-Bed – 1.5 spaces per unit; and
- residential (visitors) – 1 space per 5 units.

Table 5.1 presents the parking demands for the proposed development assessed in accordance with the requirements set out in the development control plans.

Table 5.1 Parking Requirements

Uses	Floor Space (m ²)/ No. of Room/Unit	Spaces Required
Retail	1,081m ²	38
Restaurant	295m ²	44
<i>Retail/Restaurant Sub-Total</i>	-	82
Hotel	66 Rooms	33
<i>Hotel Sub-Total</i>	-	33
Residential		
- 1 Bed	8 Units	4
- 2 Bed	12 Units	12
- 3 Bed	19 Units	29
- Visitor	39 Units	8
<i>Residential Sub-Total</i>	-	52
<i>Sub-Total</i>	-	167
<i>Less Parking Credits</i>	-	-50
Total	-	117

On this basis, the proposed development would require a minimum of 117 spaces (including the 50 space credit).

As indicated previously, due to site constraints only a total of 107 spaces would be available after reconfiguration of the basement levels to allow for mechanical and plant rooms. However, for practicality reasons, the on-site spaces would be allocated as follows:

- residential use (including visitor parking) – 74 spaces; and
- hotel use – 33 spaces.

In relation to the requirement for retail and restaurant uses (a total of 82 spaces), taking into account the 50 space credit, an additional 32 spaces would be required to be provided off site. This is not considered to be critical as our survey indicates that even in December the Cross Street car park is only used to 80 per cent of its capacity. Although not considered to be necessary, if required a contribution to Woollahra Council could be made in respect of the short fall in parking spaces.

6 Director-General's Requirements

6.1 *Summary of Director-General's Requirements*

In consultation with other government agencies, the DoP has issued the Director-General's requirements (DGR) for consideration in the Environmental Assessment. In relation to traffic and transport requirements, the DGRs stipulates that a transport and accessibility study be prepared in accordance with the RTA's *Guide to Traffic Generating Developments*, 2002 considering the traffic generation, any required intersection upgrades, access, car park and loading dock arrangements, measures to promote public transport usage and pedestrian and bicycle linkages. The Environment Assessment is also required to demonstrate that there would be sufficient provision of on-site parking for the proposed development having regard to local planning controls and RTA guidelines.

In addition, the Ministry of Transport and RTA requested that the transport study also address the transport objectives of the State Government strategies including the Metropolitan Strategy, NSW State Plan, Urban Transport Statement and the Sydney City Subregional Strategy.

In relation to traffic, Woollahra Municipal Council also requested that proposing car parking be in compliance with the relevant local development control plans, and that traffic impacts be assessed against criteria set out in the RTA guidelines.

Each of the above is addressed in the section below.

6.2 *Responses to DGR's Requirements*

This transport study considers and responds to the comments and requirements raised by the DoP and other agencies as set out in **Table 6.1**.

Table 6.1 Responses to DGR's Requirements

Requirement	Agency	Response
1. The EA must demonstrate the provision of sufficient on-site car parking for the proposal having regard to local planning controls and RTA Guidelines.	DoP	See Section 5. Woollahra's Double Bay DCP requires 117 spaces to be provided. Due to constraints on-site, a total of 107 spaces is proposed. We consider this to be satisfactory as the nearby Cross Street car park has spare capacity available.
2. The EA transport study should be prepared in accordance with RTA's RTA's <i>Guide to Traffic Generating Developments</i> , 2002 considering traffic generation, any required intersection upgrades, access, car park and loading dock arrangements, measures to promote public transport usage and pedestrian and bicycle linkages.	DoP	The transport study has been prepared in accordance to the RTA's <i>Guide to Traffic Generating Developments</i> , 2002. The assessment concludes: <ul style="list-style-type: none"> • traffic generation would be less than that of the present development; • no intersection upgrades would be necessary; • vehicular access to the car park would be unchanged; • loading will need to be by small vehicles due to limited headroom in the car park on the site; • the site has very good access to public transport already and this will of itself encourage use of public transport. However, reduced car parking on the site will help in this regards; and • pedestrian and bicycle linkages will be excellent.

Requirement	Agency	Response
<p>3. The submitted plans must demonstrate compliance with:</p> <ul style="list-style-type: none"> • Council's Off-Street Car Parking Provisions and Service Facilities DCP • AS2890.1 Off-Street Car Parking • AS2890.2 Off-Street Commercial Parking Facilities • RTA's <i>Guide to Traffic Generating Developments</i>, 2002. 	WMC	<p>On site parking provision has been assessed against the Double Bay DCP. The proposed provision has a short fall of seven spaces. This is considered to be satisfactory given that the shortfall is not significant and spare parking capacity is available in the Cross Street car park.</p> <p>The internal car parking layout has been designed to generally comply with AS2890.1. Explicit compliance may not be possible due to the retention of the existing parking structure.</p> <p>The development does not comply with AS2890.2 in that special loading arrangements are proposed having regard to the retention of the existing car park structure. This is explained in the report.</p>
<p>4. Demonstrate a minimalist approach to car parking provision as MoT is keen to reduce the provision of on-site car parking as an effective measure to encourage greater mode shift to public transport.</p>	MoT	<p>Proposed parking provision is less than that specified in Council's DCP and therefore does take a minimalist approach.</p>
<p>5. Detail existing pedestrian and cycle movements within the vicinity of the subject site and determine the adequacy of the proposal to meet the likely future demand for increased pedestrian and cycle access. This may include the requirement for the provision of facilities for the secure storage of bikes together with amenities for cyclists.</p>	MoT	<p>The pedestrian generation of the site is likely to be less than that of the existing development on the site so no measures to increase capacity in surrounding pedestrian routes would be necessary by the development.</p>
<p>6. Identify explicit measures and strategies that will optimise the opportunity provided by the project site's proximity to public transport. This may include the requirement for the preparation of Travel Access Guide (TAG).</p>	MoT	<p>The relatively small scale of the hotel and apartment portions of the development are such that a purposed developed TAG would not be appropriate. However, it will be appropriate for occupants of the development to participate in a more widespread initiative along these lines should such be initiated by Council.</p>

Requirement	Agency	Response
7. Identify measures to mitigate potential impacts for pedestrians and cyclists during the construction of the project.	MoT	This will be detailed in a Construction Traffic Management Plan to be prepared when a construction contractor is appointed and the method of construction is better defined. The scale of building and minimal excavation required are such that there would not be any insurmountable construction traffic access problems.
8. Objectives and priorities of State Plan, Urban Transport Statement, Metropolitan Strategy and Sydney City Subregional Strategy.	RTA	The East Sub-Regional Strategy and other State Government strategies all share the common transport objectives of reducing vehicle-km travel and increase the shift to other transport modes such as public transport, walking and cycling. One initiative to achieve this is the co-location of development in centres or along corridors with good public transport services. The proposed development is consistent with these strategies in that the development site is within an established centre and enjoys convenient access to both high frequency scheduled bus services and a ferry service.
9. Daily and peak traffic movements likely to be generated by the proposed development including impact on nearby intersections and any required road improvement works. Key intersections to be examine: <ul style="list-style-type: none"> • Cross St-New South Head Rd • Cross St-Ocean Av • Bay St-William St. 	RTA	See Section 4. The study examines peak hourly traffic generation of the development and finds that it would be below that of the existing development on the site. It also considers impacts on the three nominated intersections. Daily traffic generation would be similarly less than that of existing development on the site and therefore is also not of concern.
10. Details of proposed vehicle and pedestrian access points associated with the proposed development including compliance with Australian Standard requirements.	RTA	The existing access for vehicles into the site is proposed to be retained.

Requirement	Agency	Response
11. Proposed car parking provision and compliance with Woollahra Council requirements, including accommodation and manoeuvring of service vehicles.	RTA	See responses to Item 3 above.
12. Details of service vehicle movements (including vehicle type and likely arrival and departure times).	RTA	Service vehicle movements will be similar to but less than those which currently visit the site. They would typically visit the site during business hours. The impact of these would be less than that of the service vehicles which presently visit the site and no special measures to manage their access to the site are considered necessary.
13. A Traffic Management and Accessibility Plan (TMAP) be undertaken for the development site to properly ascertain the cumulative regional traffic impacts associated with the development.	RTA	Given the reduced scale of the development, matters normally dealt with in a TMAP have been dealt with in this transport report.
14. A traffic management plan for all demolition/construction activities to be provided in due course.	RTA	This will be provided in due course once a builder has been appointed.

7 Conclusions

This transport assessment report considers the transport and accessibility implications of the proposed mixed use development at 33 Cross Street, Double Bay.

The proposed development is expected to generate less traffic than that of present development on the site. Hence it would have no adverse traffic impacts.

According to the Council DCP, the proposed development requires 117 parking spaces. It is proposed to provide 107 spaces, therefore there would be a shortfall of the on-site parking provision. This is considered to be satisfactory as any peak period excess demand would be accommodated by the Cross Street car park where spare capacity is available.

Pedestrian access to and through the site would be significantly improved through the provision of a new public plaza. This will have cross linkages to streets and footpaths in different directions to make the site much more permeable for pedestrians.

In keeping with objectives to reduce private car travel, some 30 bicycle parking spaces are proposed.

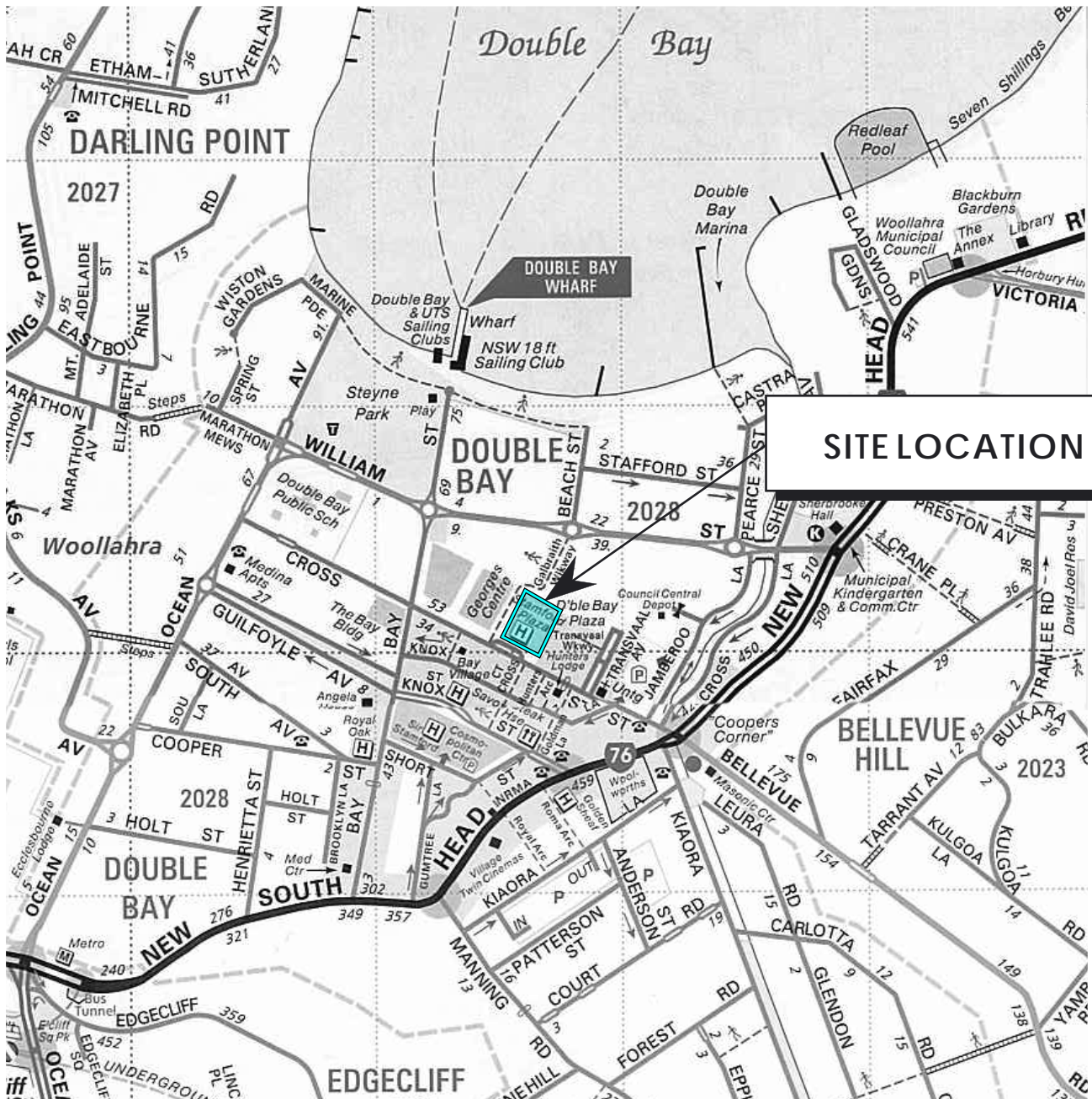
The site is highly accessible by public transport through its proximity to bus and ferry services.

Having regard to a reduction in on site parking, improved pedestrian access, additional bicycle provisions and good access to public transport, the proposed development would be highly sustainable from a transport perspective.

Overall, the traffic and parking and other transport aspects of the proposal are considered to be satisfactory.

SITE LOCATION

PROPOSED MIXED USE AT 33 CROSS STREET, DOUBLE BAY



EXISTING PEAK HOUR INTERSECTION FLOWS

PROPOSED MIXED USE AT 33 CROSS STREET, DOUBLE BAY

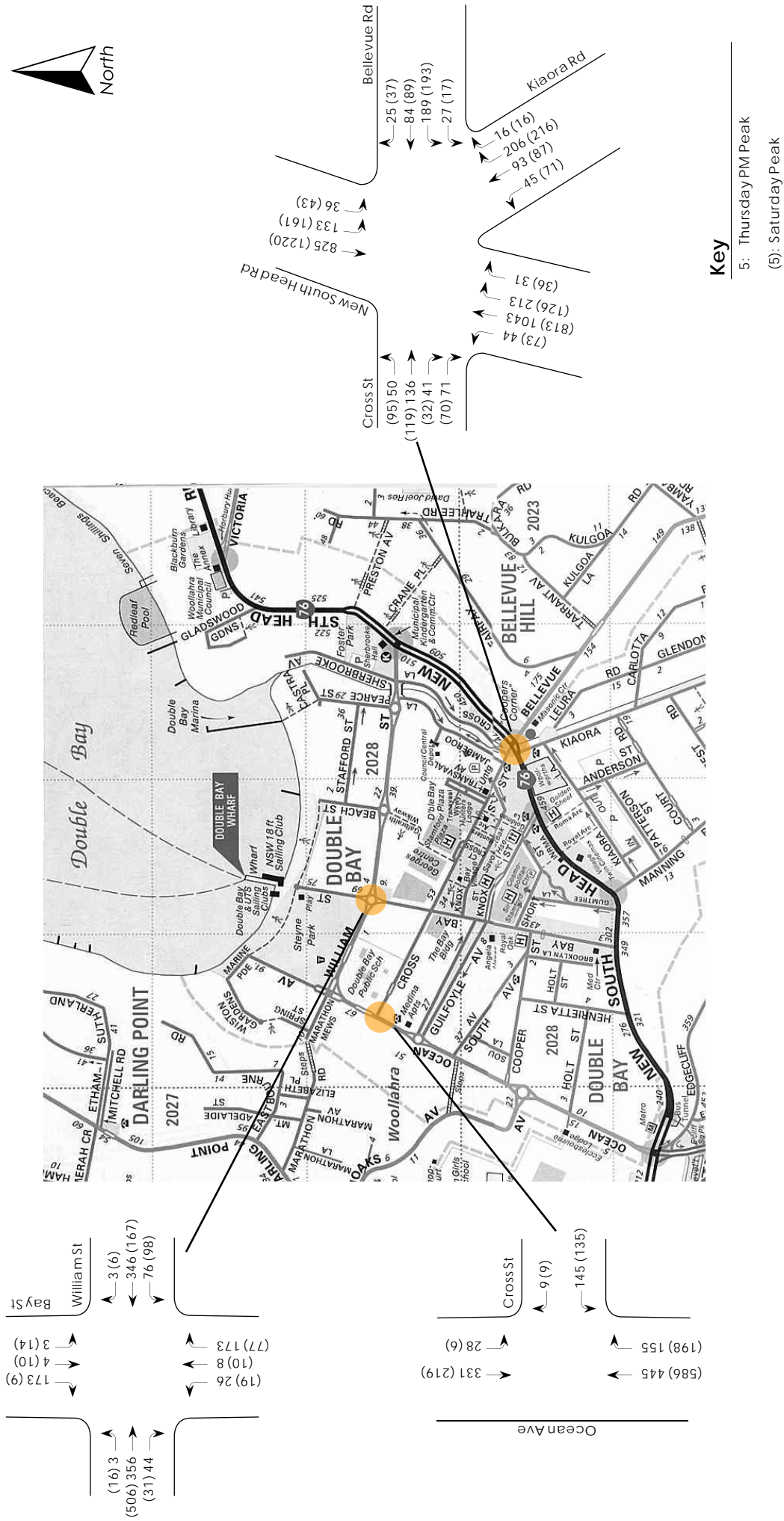
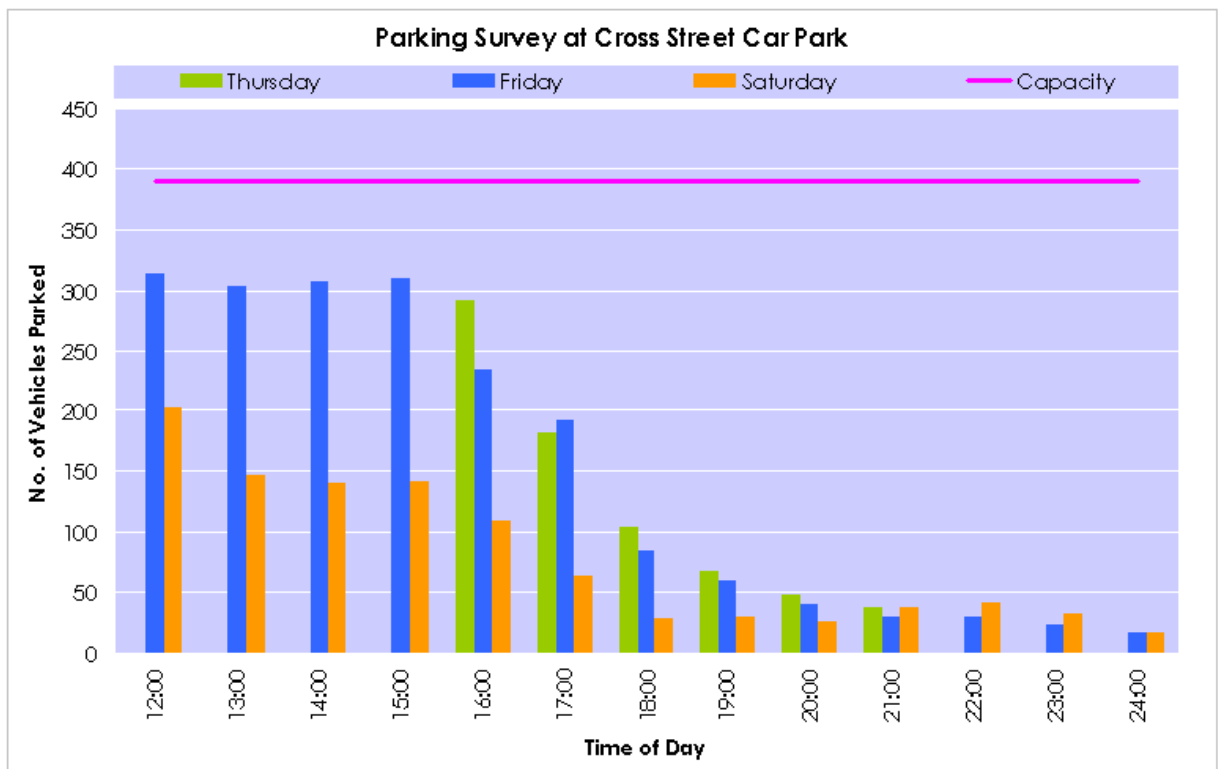
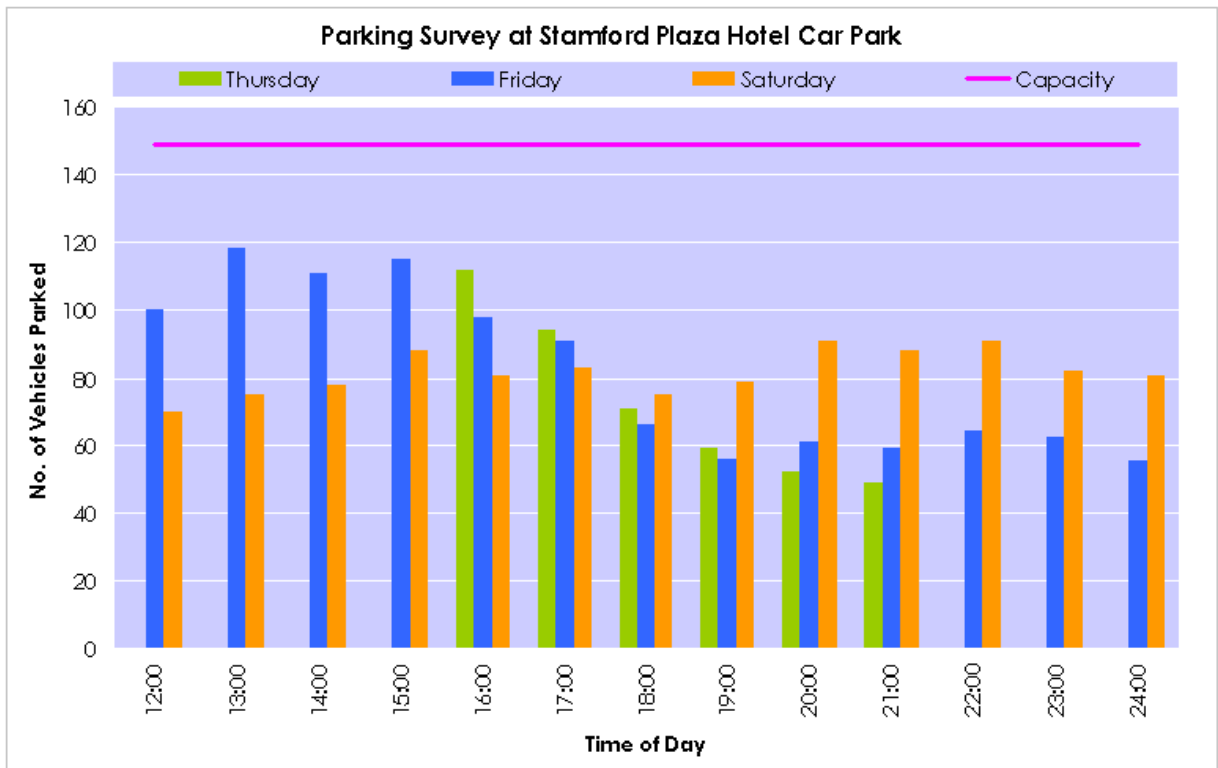


Figure 2

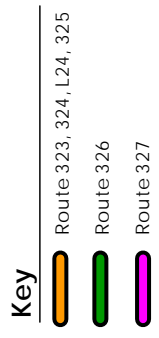
EXISTING CARPARK UTILISATION

PROPOSED MIXED USE AT 33 CROSS STREET, DOUBLE BAY



EXISTING BUS ROUTES

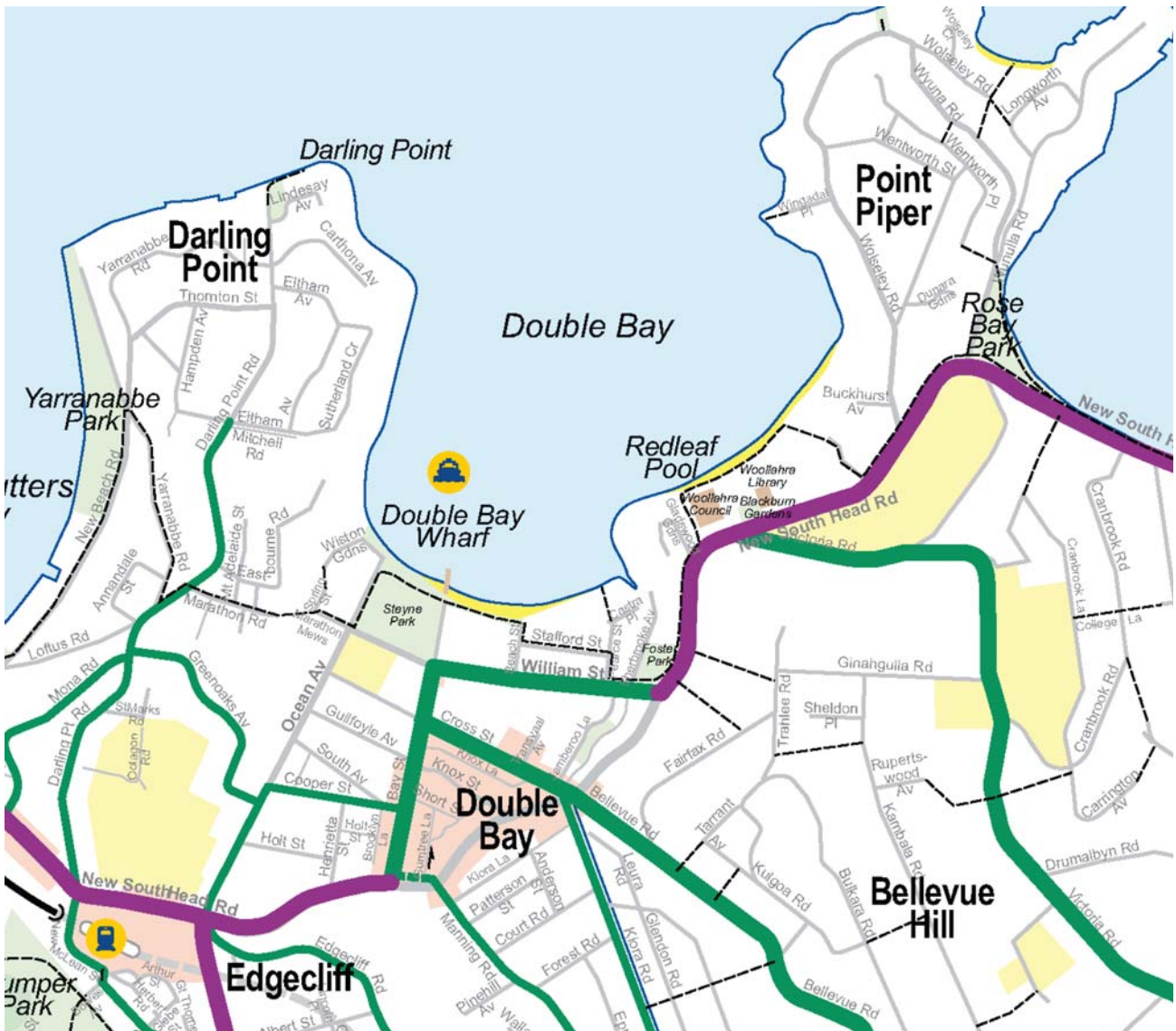
PROPOSED MIXED USE AT 33 CROSS STREET, DOUBLE BAY



Source: www.sydneybuses.info

EXISTING BICYCLE NETWORK

PROPOSED MIXED USE AT 33 CROSS STREET, DOUBLE BAY



Key to bicycle routes

Main bicycle routes on high-traffic streets

Main bicycle routes on low-traffic streets

Main bicycle routes off-road or shared paths

Local bicycle routes on high-traffic streets

Local bicycle routes on low-traffic streets

Local bicycle routes off-road or shared paths

Source: Cycling in Waverley & Wollahra (Woollahra Municipal Council Website)

Appendix A Basement Level Internal Layout Plans

Do not scale drawings. Verify all dimensions on site.

issue	amendment	date
A	PRELIMINARY ISSUE FOR DISCUSSION	01.12.08
B	PRELIMINARY ISSUE FOR INFORMATION	09.12.08
C	PRELIMINARY ISSUE FOR INFORMATION	10.01.09
D	ISSUE FOR TRAFFIC CONSULTANTS	20.01.09
E	ISSUE FOR CONSULTANTS	02.02.09
F	ISSUE FOR CONSULTANTS	02.02.09
G	ISSUE FOR INFORMATION	10.02.09
H	PRELIMINARY TO SUBMITTAL SCHEDULE	11.02.09

LEGEND

EXISTING STRUCTURE
 VERIFY ALL EXISTING CONDITIONS ON SITE

NEW COLUMN TO ENGINEER'S DETAILS

COL

CAR PARKING SUMMARY

E. Basement Level	SMALL CARPARK BAY	54
E. Basement Level	SMALL CARPARK BAY	58
E. Basement Level	SMALL CARPARK BAY	37
E. Basement Level	SMALL CARPARK BAY	2
E. Basement Level	ACCESSIBLE CARPARK BAY	4
	TOTAL	155



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Project: 33 CROSS STREET, DOUBLE BAY

Drawing: LOWER BASEMENT FLOOR PLAN

Scale:	1:200 @ A1	Drawing No.:	
Drawn:	AD/FF/DCR	DA/ID/DCR	DA02-01
Checked:	CO	Scale:	H
Project No.:	070066		

11/02/2009 11:32:16 AM



BASMENT STAIRS
 3 VERTICAL STAIRS PARKING SPECIALLY PARKING SPACES

BASMENT STAIR 2

EXISTING LIFT PIT SHAFT

NEW CONCRETE WITH

NEW CONCRETE WITH

LINE OF EXISTING SUBSTATION ABOVE IS SUBMITTED AND NOT TO BE CONSIDERED

LOW HEIGHT PARKING ONLY BELOW SUBSTATION

Do not scale drawings. Verify all dimensions on site.

issue	amendment	date
A	PRELIMINARY ISSUE FOR DISCUSSION	01.12.08
B	PRELIMINARY ISSUE FOR INFORMATION	09.12.08
C	PRELIMINARY ISSUE FOR INFORMATION	10.01.09
D	ISSUED TO TRAFFIC CONSULTANTS	20.01.09
E	ISSUED TO TRAFFIC CONSULTANTS	02.02.09
F	ISSUE FOR INFORMATION	10.02.09
G	PRELIMINARY ISSUE FOR INFORMATION	10.02.09
H	PRELIMINARY ISSUE FOR INFORMATION	11.02.09

LEGEND

EXISTING STRUCTURE
 VERIFY ALL EXISTING CONDITIONS ON SITE

NEW COLUMN TO HIGHERS DETAILS

CCL

CAR PARKING SUMMARY

EA Basement Lower	54
EA Basement Upper	58
EA Basement Lower	37
EA Basement Upper	2
ACCESSIBLE CARPARK BAY	4
ACCESSIBLE CARPARK BAY	49
TOTAL	107

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Project: 33 CROSS STREET, DOUBLE BAY

UPPER BASEMENT FLOOR PLAN

Scale	1:200 @ A1	Drawn by	
Drawn	ADJ/FJH/DR	Checked	DA02-02
Project No.	070068	Client	CO
Date	11/02/09 14:51 PM	Project No.	070068

