Appendix 3 – Traffic and Transport Assessment

Traffic Impact Assessment

Planning Proposal
2 - 10 Phillip Street, Parramatta

Reference: 14.286r01v3 – 29 August 2014

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Contents

1. Introduction

TRAFFIX was commissioned by Coronation Property Co Pty Ltd to undertake a traffic impact assessment to accompany the Planning Proposal for the site located at 2 - 10 Phillip Street, Parramatta. The application seeks approval for rezoning to accommodate a 46 storey building providing approximately 280 - 300 residential apartments and 200 hotel rooms, with ancillary hotel facilities of approximately 1,000m² GFA. As a Planning Proposal, these yields are indicative only and any firm proposal would be the subject of a subsequent development application.

The development is located within the Parramatta Local Government Area, and the proposal has been developed with due consideration of Council's planning controls.

This report documents the findings of our investigations and should be read in the context of the Planning Report provided separately.

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Discusses nearby development applications of relevance
- Section 5: Describes the proposed development
- Section 6: Assesses the parking requirements
- Section 7: Assesses traffic impacts
- Section 8: Presents the overall study conclusions.

2. Location and Site

The subject site is located on the north-eastern corner of the intersection of Marsden Street and Phillip Street in Parramatta, to the south of the Parramatta River.

The site comprises the property at 2 Phillip Street (Lot 1 and 2 on DP986344) and 10 Phillip Street (Lot 1 on DP228697). These sites currently accommodate the following:

- 2 Phillip Street: a former Church (St Andrews) which, along with the adjacent building at 6 – 8 Phillip Street, has been adaptable reused and is currently operating as a bar/restaurant premises (Bavarian Bier Cafe). This building is listed as an item of local heritage significance in the Parramatta City Centre Local Environmental Plan 2007.

- 6 – 8 Phillip Street: a hall of approximately 360m² which was associated with the former Church (St Andrew) which, along with the adjacent building at 2 Phillip Street, has been adaptable reused and is currently operating as a bar/restaurant premises (Bavarian Bier Cafe). This building is listed as an item of local heritage significance in the Parramatta City Centre Local Environmental Plan 2007.

- 10 Phillip Street: a five-storey commercial building of approximately 1,600m² NLA

The subject site has frontages to Phillip Street to the south, Phillip Lane to the east, Marsden Street to the west, and the Lennox Bridge Car Park (an outdoor public car parking area providing approximately 72 parking spaces) and a residential apartment building at 101 Marsden Street to the north.

The property at 10 Phillip Street is presently accessed via a driveway at the rear of the site at the northern site boundary, which is accessed via Phillip Lane. The Church Building and associated Hall do not provide any on-site parking, however an area at the front of the site between the Church Building and the Hall is used for servicing, and is accessed via a driveway on Phillip Street.

A location plan is presented in **Figure 1**, and the subject site is shown in **Figure 2**. Reference should also be made to the Photographic Record provided in **Appendix A** which provides an appreciation of the road environment in the immediate locality.

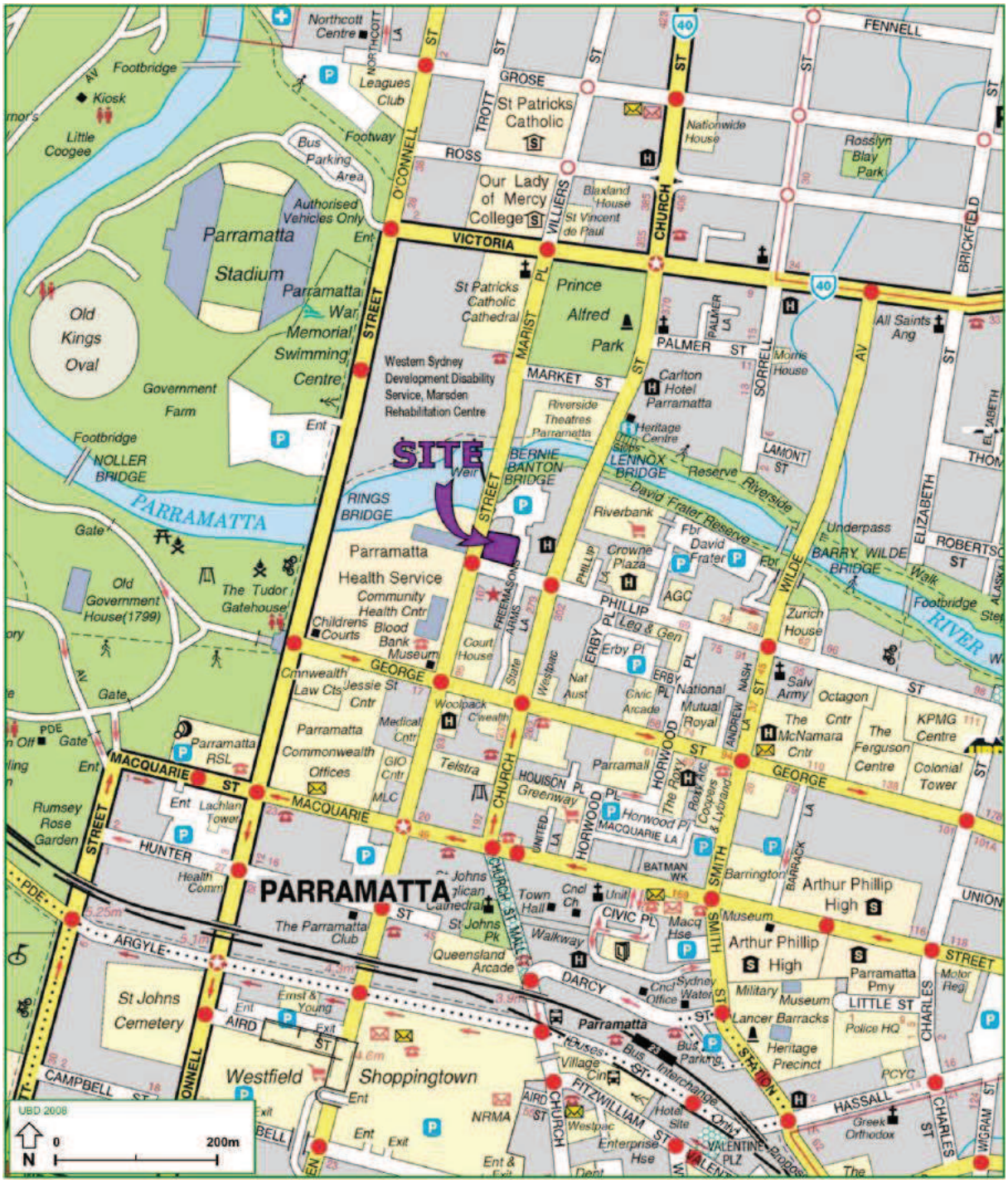


Figure 1: Location Plan

Figure 2: Site Plan

3. Existing Traffic Conditions

3.1 Road Network

The broader road hierarchy surrounding the site is shown in **Figure 3**, with the following roads in proximity to the site being of particular interest:

- Marsden Street: a local collector road which runs in a north-south direction to the west of the site, and carries approximately 14,000vpd. It provides a connection over the Parramatta River via the Marsden Street Bridge, and generally has a two-lane, two-way cross-section with auxiliary lanes at intersections and kerbside parking in selected locations along its length. Marsden Street is posted at 50km/hr in the vicinity of the site.

- Church Street: a road which runs in a north-south direction to the east of the site, and carries approximately 10,000vpd over the Parramatta River. Church Street is a local road in the vicinity of the site, between Victoria Street to the north of the river and the Great Western Highway to the south of the river. It generally has a two-lane, two-way cross-section with auxiliary lanes at intersections and kerbside parking in selected locations along its length. Church Street is posted at 40km/hr in the vicinity of the site.

- Phillip Street: a local road which connects from Marsden Street just to the west of the site, to Charles Street, near the Parramatta Ferry Wharf. It generally has a two-lane, two-way cross-section with auxiliary lanes at intersections and kerbside parking in selected locations along its length. Church Street is posted at 40km/hr in the vicinity of the site, and is estimated to carry in the order of 3,000vpd.

- Phillip Lane: a local roadway which provides access from Phillip Street to the Lennox Bridge Car Park. It is understood that Phillip Lane is a private road which forms part of the Lennox Bridge Car Park site, however it is relied upon for vehicular access to various properties fronting Church Street, Phillip Street, and Marsden Street.

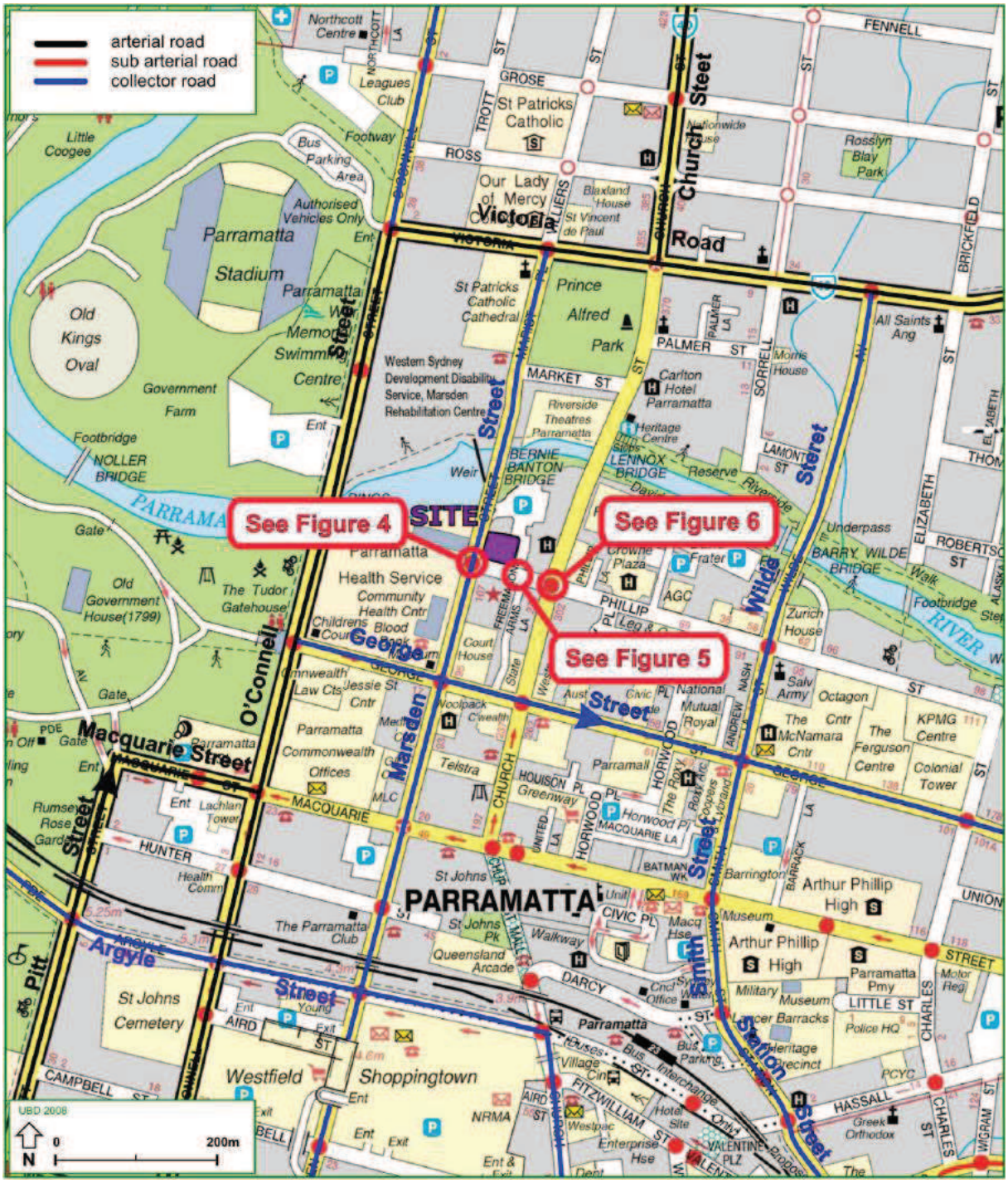


Figure 3: Road Hierarchy

3.2 Key Intersections

The following sections describe the key intersections in proximity to the subject site.

3.2.1 Marsden Street / Phillip Street Intersection

The Marsden Street / Phillip Street Intersection is located to the west of the subject site. It operates as a four-way signalised intersection with the western leg providing access (controlled by boomgates) to/from the Parramatta Community Health Centre.

Based upon traffic analyses undertaken by Varga Traffic Planning as part of the application for the proposed "Riverside Parramatta" Development (discussed further in the following sections), this intersection is currently operating within acceptable capacity limits, at Level of Service A and 34% and 55% degree of saturation during the AM and PM peak hours respectively (noting that 90% degree of saturation typically represents acceptable operation at a signalised intersection).

Figure 4: Marsden Street / Phillip Street Intersection

3.2.2 Phillip Street / Phillip Lane / Freemasons Arms Lane Intersection

The Phillip Street / Phillip Lane / Freemasons Arms Lane Intersection is immediately adjacent to the site to the east, and is an offset four-way priority-controlled intersection (see **Figure 5** below). No auxiliary turn lanes are provided at this intersection, and whilst the report prepared by Varga Traffic Planning as part of the application for the proposed "Riverside Parramatta" Development suggest that it is operating well within acceptable capacity limits (below 12% degree of saturation during both the AM and PM peak), on-site observations have revealed congestion issues at this intersection which are a result of a combination of factors including:

- traffic queuing back from the adjacent intersections (Church Street to the east and Marsden Street to the west);
- the restricted roadway width which limits the ability for vehicles seeking to turn into Phillip Lane to pass a vehicle propped to exit Phillip Lane onto Phillip Street;
- reasonable volumes of heavy vehicles on this roadway, particularly during the morning period when the majority of deliveries are made to the local restaurants businesses; and
- parking manoeuvres along the eastern (southbound) side of the roadway.

Figure 6 below demonstrates the congestion issues described above.

Figure 5: Phillip Street / Freemasons Arms Lane Intersection

Figure 6: Existing Traffic Congestion Issues on Phillip Lane during Morning Period (May 2014)

3.2.3 Church Street / Phillip Street Intersection

The Church Street / Phillip Street Intersection is located to the east of the subject site, and operates as a four-way signalised intersection.

Based upon traffic analyses undertaken by Varga Traffic Planning as part of the application for the proposed "Riverside Parramatta" Development, this intersection is currently operating within acceptable capacity limits, at Level of Service A and 33% and 29% degree of saturation during the AM and PM peak hours respectively (noting that 90% degree of saturation typically represents acceptable operation at a signalised intersection).

Figure 7: Church Street / Phillip Street Intersection

3.3 Public Transport

3.3.1 Existing Services

The subject site is within Parramatta City Centre and is therefore well serviced by public transport. It is approximately a 1km (or a 10min walk) to/from Parramatta Railway Station, which is situated to the south-east of the site.

The public bus services on the local road network are as shown in **Figure 8**, and include both local and regional services. There are several bus stops within a 400m radius of the site, on Church Street, Phillip Street, George Street and Macquarie Street.

The Parramatta Rivercat Wharf is located approximately 800m to the east of the site, via an 8 minute walk along Phillip Street and/or the pedestrian path along the river.

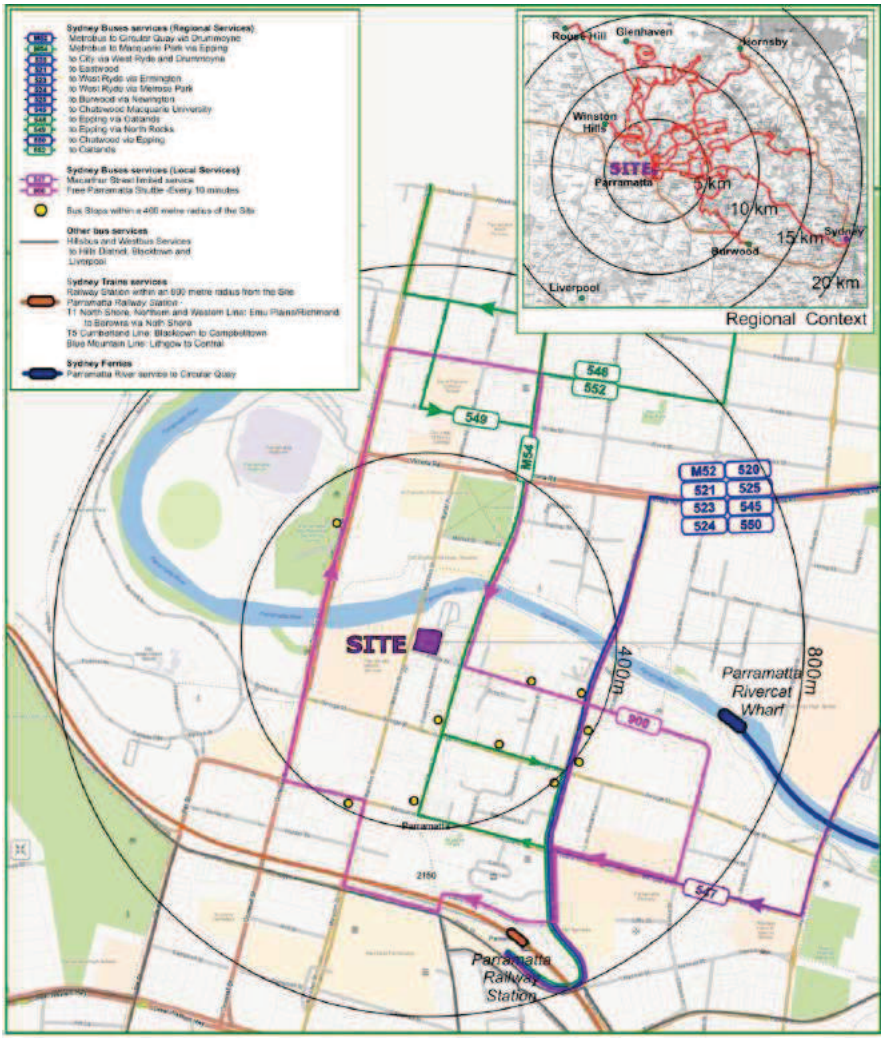


Figure 8: Existing Public Transport Services

3.3.2 Future Light Rail

Parramatta City Council (Council) proposes a Western Sydney Light Rail Network centred on Parramatta, linking key activity centres in the region. The network stretches from Macquarie Park and Strathfield in the east to Rouse Hill in the north, Bankstown and Liverpool in the south and Wetherill Park and Blacktown in the west. The potential light rail routes identified in the feasibility report include:

- Parramatta to Macquarie Park via Carlingford
- Parramatta to Castle Hill via Old Northern Road
- Parramatta to Liverpool via the T-way
- Parramatta to Bankstown
- Parramatta to Sydney Olympic Park
- Parramatta to Rouse Hill
- Parramatta to Ryde via Victoria Road
- Parramatta to Sydney CBD via Parramatta Road
- Parramatta to Macquarie Park via Eastwood
- Parramatta to Castle Hill via Windsor Road

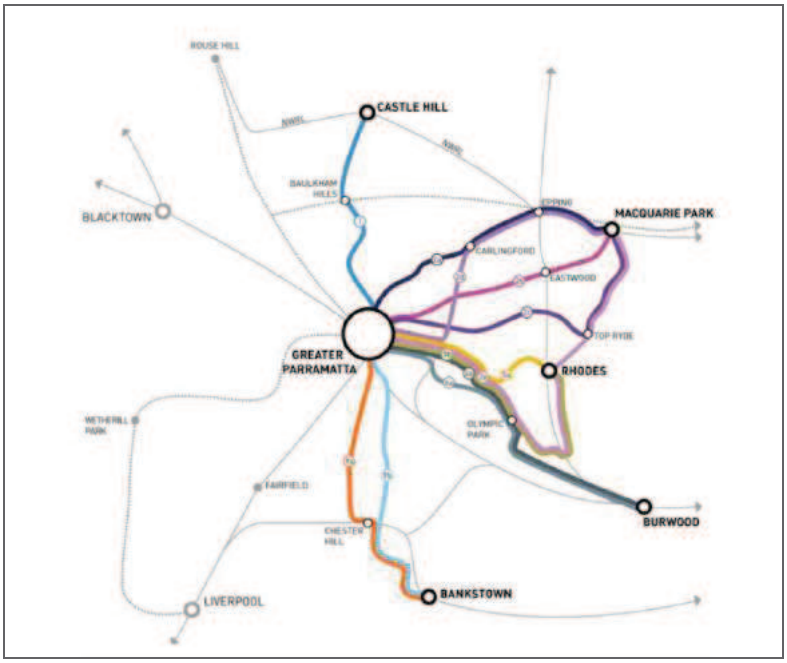


Figure 9: Light Rail Alignment Options Considered

[Source: Parramatta City Council Western Sydney Light Rail Network - Part 1 Feasibility Report]

It is understood that the state government has recently allocated funding to accelerate work on the study, with the first task to identify the highest priority corridor from Parramatta and carry out a detailed feasibility study. Once the first stage of work to identify the best light rail route is completed, a number of viable options will be taken forward for detailed design and feasibility.

Whilst this study is in its early stages and the delivery of the light rail network is not likely to commence for several years, ultimately once delivered, it will further improve accessibility between the subject site and the key activity centres in the region.

4. Nearby Applications

4.1 'Riverside Parramatta'

An application was lodged in early 2014 for the "Riverside Parramatta" Development on the Lennox Bridge Car Park site, at 12-14 Phillip Street, 333 & 339 Church Street, Parramatta. This site adjoins the subject site to the east and the north, as shown in **Figure 10** below.

This application seeks approval for the demolition of the existing outdoor public car parking area on the site as well as an existing two-storey mixed-use building fronting Church Street, to facilitate the construction of a new multi-storey mixed use development comprising approximately 413 apartments within a residential tower over a three-level podium. The podium will include retail/restaurant/café uses on the ground floor level, Council's Discovery Centre on level 2 and a Conference Centre on level 3.

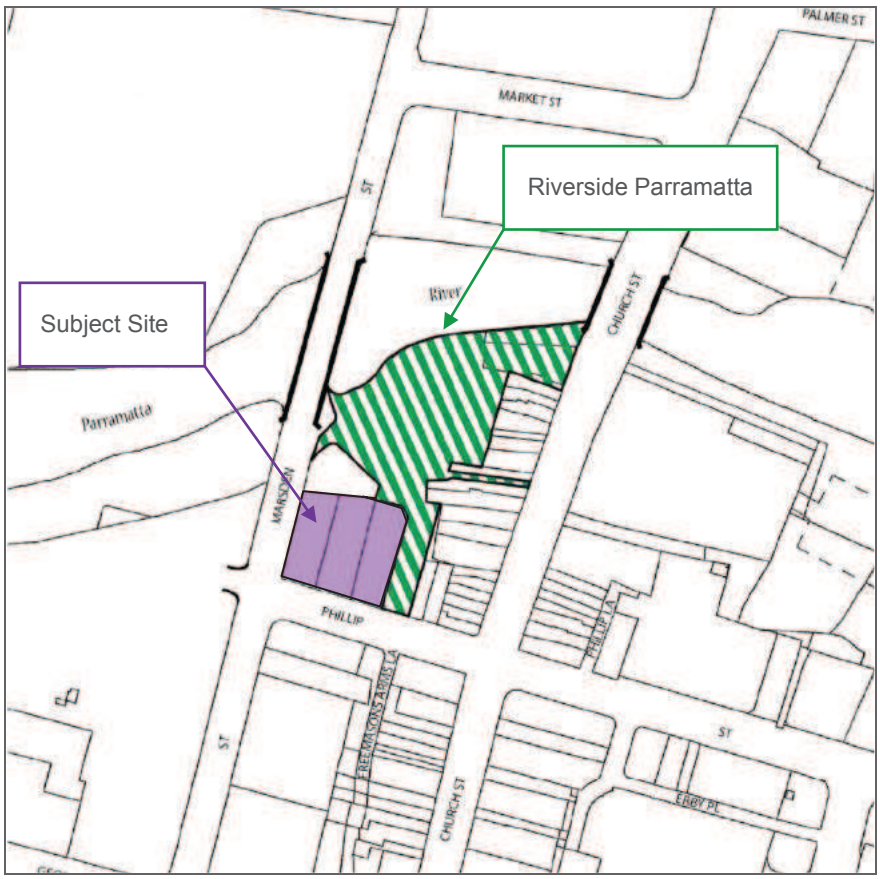


Figure 10: 'Riverside Parramatta' Development Site

Car parking for the development is proposed for a total of 350 cars in a six-level basement car parking area, comprising approximately 60 spaces per level. No public parking is proposed to be provided, nor is visitor parking for the Conference Centre or other non-residential components (with the exception of 5 Discovery Centre spaces and 4 "Go Get" car share spaces).

Under this application, vehicular access to the basement car park and loading facilities is proposed via the existing roadway off Phillip Street (Phillip Lane), which is proposed to be converted to a 10km/h Shared Zone for shared pedestrian and vehicular use.

The proposal includes a loading dock on the ground floor level at the rear of the restaurant/bar/café area and comprises 2 x MRV bays, 2 x SRV bays and 3 courier bays. The loading dock is proposed to service the proposed 'Riverside Parramatta' development, as well as the retail premises fronting Church Street which back onto the subject site, given that the proposal would remove the loading areas which current service these restaurants and businesses.

TRAFFIX undertook a review of the application material for the 'Riverside Parramatta' development focusing on the traffic elements of the proposal, considering potential safety and operational implications for other properties in proximity to that site, both during construction, and once the proposed 'Riverside Parramatta' development is completed and operational.

Amongst other issues, a number of concerns were identified with regards to the proposed modifications to and increase in demand upon Phillip Lane as a result of the 'Riverside Parramatta' development. This review was a key factor in the development of the access arrangements for this Planning Proposal for 2 – 10 Phillip Street, as discussed further in the following sections.

4.2 Other Applications

It is understood that applications for the rezoning or redevelopment of other properties within the area bounded by Marsden Street, Phillip Street, Church Street, and the Parramatta River may be imminent. Given the constraints upon vehicular access to the individual properties within this precinct, it is anticipated than an integrated access strategy will need to be developed in consultation with the relevant landowners and stakeholders.

This access strategy should consider:

- The form and function of the access to the site (Phillip Lane);
- The form and function of pedestrian linkages through the precinct;

- The impacts of the construction of any development within the precinct upon the operations of the neighbouring properties, and the surrounding road network;

- The impacts of any development within the precinct (once completed) upon the operations of the neighbouring properties, and the surrounding road network;

- Provision for rights of carriageway on Phillip Lane to service the developments in question, or the dedication of this roadway such that it is a public road; and

- Implications of any development within the precinct upon the potential future development of the neighbouring properties, both in terms of the physical constraints they impose, and the operational impacts upon Phillip Lane.

The above issues were a key factor in the development of the access arrangements for this Planning Proposal at 2 - 10 Phillip Street, as discussed further in the following sections.

5. Proposed Development

5.1 Development Overview

The planning proposal seeks approval to vary Council's LEP to deliver a 46 storey building containing approximately 280 - 300 residential apartments and 200 hotel rooms (with ancillary hotel facilities of approximately 1,000m² GFA).

The proposal retains the (former) St Andrews Church on the corner of Marsden Street and Phillip Street, however the basement car park is proposed to extend under the Church from basement level 3 down.

Reference should be made to the concept plans which are presented at reduced scale in **Appendix B**. It should be noted that as a Planning Proposal, the yields above are indicative only and any firm proposal would be the subject of a subsequent development application.

5.2 Proposed Vehicular Access Arrangements

All vehicular access to the development which is the subject of this Planning Proposal is proposed via Marsden Street. This direction was taken following discussions with Council, and in light of the issues with Phillip Lane as outlined in the previous sections and the lack of certainty surrounding the detail and timing of the 'Riverside Parramatta' development in particular.

In accordance with discussions held with Council representatives, an all-movements access driveway is proposed to the north of the (former) St Andrews Church (see **Figure 11** below), to cater for the entry and exit movements of service vehicles (up to an 8.8m long Medium Rigid Vehicles) and cars seeking to access the basement car park.

It is proposed that this access driveway width be maximised within the constraints (notably the heritage listed church building to the south). A driveway width of approximately 6.6m is proposed, which will rely on the demolition of a small section of building at the rear of the church and would be adequate to accommodate the entry and exit movements of up to an 8.8m long Medium Rigid Vehicle, as demonstrated in the swept path diagrams included as **Appendix C**.

Whilst the detail of the ramp grading is a matter that can be refined at any subsequent development application stage, the intent will be to meet the requirements of AS2890.1 and AS2890.2 for maximum ramp grades and changes in grade, whilst minimising the impact of the ramp (i.e. the void above) upon the ground level 'plaza' area, which is intended to be an active area which provides pedestrian

connectivity between Phillip Street and the riverfront colonnade area as proposed as part of the 'Riverside Parramatta' development.

Preliminary investigations suggest that a ramping arrangement which meets the maximum grades stipulated in AS2890.2 for heavy vehicles (1:6.5 maximum) are feasible, providing adequate height clearance for trucks up to approximately 3.6 - 3.8m in height. This is discussed further in Section 6.6.

Whilst the proposal does not rely upon access via Phillip Lane, the applicant proposes to work with Council and the applicant for the 'Riverside Parramatta' development to facilitate improvements to Phillip Lane, to improve the operation of this laneway, and enhance its character and appearance.

To this end, the applicant has developed a concept (shown in **Figure 11** below) which:

- facilitates the widening of Phillip Lane at Phillip Street to provide adequate width for a service vehicle to turn left into Phillip Lane without encroaching into the other side of the Phillip Lane roadway;
- provides a refuge for pedestrians to cross Phillip Lane at the Phillip Street intersection;
- retains kerbside parking lane for the properties on the eastern side of Phillip Lane; and
- enables the appearance and character of the street to be enhanced through streetscaping and landscaping treatments.

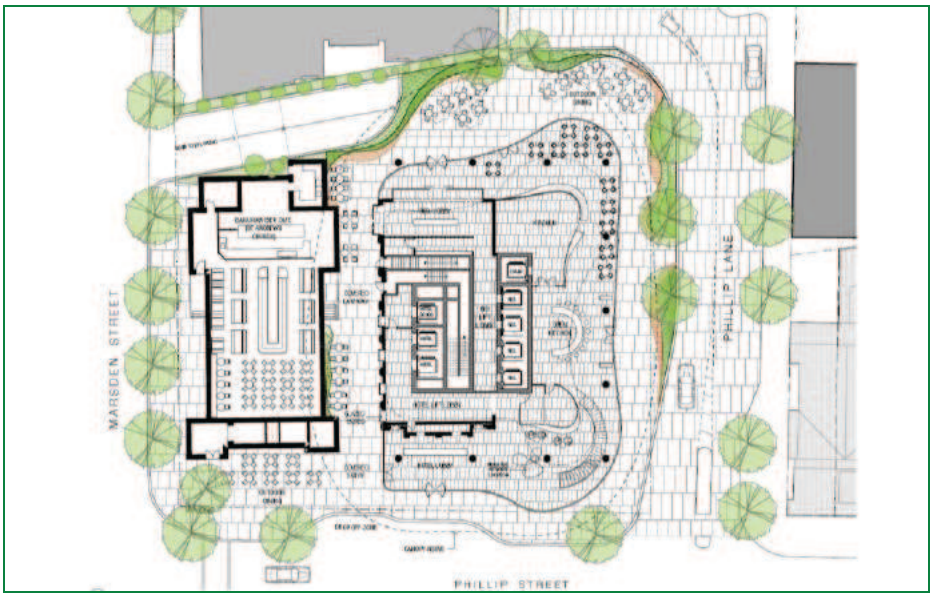


Figure 11: Ground Level Concept Plan

In addition to the above, a setdown area is proposed on Phillip Street to service the development. It is envisaged that this would primarily be used by taxis, for passenger drop-off and pick-up (including for people with disabilities, noting the detail of this area would need to be refined to cater for these users), and potentially the occasional service vehicle (as discussed further in Section 6.6).

6. Parking Requirements

6.1 Council Controls

Parking for the proposed development (based on the concept plan formulated for the purpose of the Planning Proposal) has been assessed having regard for the requirements of the Parramatta City Centre Local Environmental Plan (LEP) 2007.

This LEP stipulates maximum parking rates for the following relevant uses:

- Multi dwelling housing: 1, 2 and 3 bedrooms: A maximum of 1 parking space to be provided for every dwelling plus 1 parking space to be provided for every 5 dwellings for visitors
- Hotel accommodation: A maximum of 1 parking space to be provided for every 5 hotel units plus 1 parking space to be provided for every 3 employees
- Commercial: A maximum of 1 parking space to be provided for every 100m2 of gross floor area
- Shops: A maximum of 1 parking space to be provided for every 30m2 of gross floor area

Table 1: Parking Requirements (LEP)

Type	Number (units/hotel rooms) / Area (m²)	Min Parking Provision (spaces)	Max Parking Provision (spaces)
Apartments	280 - 300	0	280 - 300 (residents) 56 - 60 (visitors)
Hotel Rooms	200	0	40 (guests) 10* (employees)
Other (Commercial / Retail)	1,000m²	0	5# (commercial) 17# (retail)
TOTAL		0	408 - 432 spaces

*assumes 30 employees in hotel

#assumes 50% commercial / 50% retail

As summarised in the table above, the Parramatta City Centre Local Environmental Plan (LEP) 2007 would permit up to approximately 408 - 432 parking spaces on the site, based upon the indicative yields.

6.2 Proposed Parking Provision

The proposed parking provisions (to be finalised at Development Application Stage) will be consistent with the requirements of Council's LEP, with the current concept plans (included as **Appendix B**) showing a total of 215 car parking spaces a (including 24 accessible parking spaces), and 6 motorcycle spaces.

This level of provision is well within the controls set in Council's LEP as outlined in Section 6.1.

6.3 Parking for People with Disabilities

On-site car parking for People with Disabilities (PWD) should be provided in accordance with the requirements of the *Disability (Access to Premises — Buildings) Standards 2010,* and designed in accordance with the requirements of AS2890.6, with 2.4m wide parking spaces and adjacent 2.4m wide shared areas, and a minimum 2.5m height clearance above the accessible parking spaces and shared areas.

One accessible parking space is to be provided for each adaptable unit within the residential component of the development.

The concept plans included as **Appendix B** show provision for parking for people with disabilities on all five parking levels in close proximity to lifts for ease of access. These arrangements would refined if necessary and/or finalised at development application stage.

6.4 Bicycle Parking

Council's DCP stipulates the following requirements for bicycle parking:

- Bicycle parking for business and retail premises is to be provided at a rate of 1 bicycle space per 200 sqm of floor space.
- Bicycle parking for residential flat buildings is to be provided at a rate of 1 bicycle space per 2 dwellings.
- Bicycle parking is to be provided in the form of Class 2 compounds, as specified in AS 2890.3 – Bicycle Parking Facilities. These facilities may be located in storage areas if good access is provided.

- All bicycle parking should be located in a safe and secure location that is under cover and convenient for users.
- Trip end facilities including showers and lockers must be provided to adequately service the number of bicycle parking spaces required in business and retail premises.
- Bicycle parking in the public domain must be located as close as possible to the main entrance of the building at ground level.

Based upon the bicycle parking rates stipulated above, a total of 140 - 150 bicycle parking spaces for residents and 5 bicycle parking spaces to service the commercial / retail components of the development should be provided. Provision for bicycle parking should also be made for the hotel component of the development, however no rate is provided in Council's DCP for this particular use.

It is envisaged that bicycle parking would be provided in the basement car park (for residents and employees), and at ground level, for visitors to the development.

This is a detailed matter that can be addressed and finalised at development application stage.

6.5 Car Share

Council's DCP stipulates the following controls with regards to car share parking:

- 1 carshare parking space is to be provided for any residential development containing more than 50 residential units and is within a 800m radial catchment of a railway station (which this development is) or 400m radial catchment of a bus stop with a service frequency of an average of 15 minutes or less during the morning peak (7 am - 9 am) in either direction.
- Carshare parking spaces must be publicly accessible at all times, adequately lit and sign posted and located off street.

Given the proposed basement car park will not be publicly accessible at all times, a carshare space will need to be accommodated elsewhere. It would seem that the most logical location for a carshare space would be on Phillip Lane.

This is a detailed matter that can be addressed and finalised at development application stage.

6.6 Servicing

Council's DCP stipulates the following requirements for waste collection:

- Developments are to incorporate convenient access for waste collection, noting that Council does not provide collection from within private properties or roads.
- In the case where a development proposes to use a dumpster/bulk bins, access is to be provided from the street level without the need for manual handling with sufficient space for the collection vehicle to drive to the collection point, empty the bin safely and exit without traffic interference or any height restrictions. This service is generally not provided by Council's waste contractor.

On the basis of the above, it is envisaged that a private waste contractor would need to be engaged to service the development, and therefore there is some flexibility with regards to the size of the waste collection vehicle the development would need to accommodate.

As shown in the reduced plans included as **Appendix B**, the proposal involves the provision of two loading bays on Basement Level 1 adjacent to the waste store area, to service the development. These loading bays and the associated manoeuvring area to access these bays would permit access by up to 8.8m long Medium Rigid Vehicles (noting that several private waste contractors run vehicles of this size).

The current design concept provides in the order of 3.6 – 3.8m height clearance for service vehicles travelling down the ramp and to the basement servicing area (depending on structural requirements and subject to detailed design). This would be adequate to accommodate most refuse collection vehicles (noting the operator/s would have the ability to engage a private waste contractor with a vehicle capable of servicing the site within the design constraints, rather than having to rely on Council's waste collection vehicles which may require additional height clearance).

Whilst it is acknowledged that a height clearance of 4.5m is stipulated in AS2890.2 for Medium Rigid Vehicles, a height clearance of 3.6 – 3.8m would cater for the vast majority of service vehicles and furniture removal trucks which may service the site.

In the event that a vehicle which exceeds 3.6 – 3.8m in height (e.g. a large furniture removal truck) needs to service the development (which is expected to occur only infrequently), it is envisaged that such a vehicle could use the setdown area proposed on Phillip Street.

In summary, the servicing arrangements proposed are considered to be consistent with the intent of Council's DCP (as outlined above), and represent a feasible alternative solution to the standards, recognising the constrained nature of the site and the desire to minimise the impact of service vehicle access provision upon the activated pedestrian / outdoor dining area on the ground level.

Notwithstanding the above, the servicing arrangements would be addressed and finalised at development application stage.

7. Traffic Impacts

The impact of the proposed development on the external road network has been considered having regard for the net increase in traffic generation anticipated by the proposed development, as outlined in the following sections.

7.1 Existing (Estimated) Traffic Generation

As outlined in Section 2, the subject site currently accommodates the following:

- 10 Phillip Street: a five-storey commercial building of approximately 1,600m² NLA
- 2 and 6-8 Phillip Street: a former Church and Hall which are currently operating as a bar/restaurant premises (Bavarian Bier Cafe).

No car parking is provided for the buildings on 2 and 6-8 Phillip Street (the Bavarian Bier Cafe), and therefore it has been assumed for the purpose of these analyses that these buildings do not presently generate any vehicular traffic.

With regards to the existing commercial building at 10 Phillip Street, the following traffic generation rates for a commercial/office use as stipulated in the RMS Guide to Traffic Generating Developments Updated traffic surveys (TDT 2013/04a) have been assumed:

- Morning peak hour vehicle trips = 1.6 per 100 m2 gross floor area
- Evening peak hour vehicle trips = 1.2 per 100 m2 gross floor area.

The application of the above rates to the approximate GFA of 1,600m² provides the following estimated traffic generation for the building at 10 Phillip Street:

- Morning peak hour vehicle trips = 26 vehicle trips
- Evening peak hour vehicle trips = 19 vehicle trips

7.2 Predicted Traffic Generation

The traffic generation for the residential and hotel components of the development has been estimated using the approaches outlined below.

7.2.1 Residential

The following traffic generation rates for a residential use as stipulated in the RMS Guide to Traffic Generating Developments Updated traffic surveys (TDT 2013/04a) have been applied to the residential component of the development:

- Morning peak hour vehicle trips = 0.19 trips per unit
- Evening peak hour vehicle trips = 0.15 trips per unit

The application of the above rates to the approximate yield of 280 – 300 units provides the following estimated traffic generation for the residential component of the development:

- Morning peak hour vehicle trips = 57 vehicle trips
- Evening peak hour vehicle trips = 45 vehicle trips

7.2.2 Hotel

Given no on-site car parking is proposed to service the hotel, the traffic generated by this component of the development will effectively be limited to taxis and passenger drop-off and pick-up.

The RMS Guide to Traffic Generating Developments does not provide an appropriate traffic generation rate for a hotel of the nature of that proposed (i.e. in a city centre, with no on-site parking provisions).

As such, the results of surveys undertaken at an existing and operational hotel in St Leonards were used to determine the likely pick-up and setdown traffic generation of this component of the development. The hotel surveyed provides 100 hotel rooms and three conference room facilities with a capacity of 80 - 100 people.

Surveys were undertaken as 15-minute counts over a 14-hour period from 7:00am to 9:00pm. The results of the surveys undertaken suggest the following average weekday pick-up and setdown traffic generation during the peak hours:

- Morning peak hour vehicle trips = 8.0 vehicle trips / 100 hotel rooms
- Evening peak hour vehicle trips = 8.8 vehicle trips / 100 hotel rooms

Applying the above traffic generation rates to the proposed development (200 hotel rooms) provides the following estimated traffic volumes:

- Morning peak hour vehicle trips = 16 vehicle trips
- Evening peak hour vehicle trips = 18 vehicle trips

7.2.3 Total Predicted Traffic Generation

Based upon the assumptions outlined in Sections 7.2.1 and 7.2.2, the total predicted traffic generation of the development is:

- Morning peak hour vehicle trips = 73 vehicle trips
- Evening peak hour vehicle trips = 63 vehicle trips

That is, the development is predicted to generate in the order of one vehicle trip per minute on average, during the morning and evening peak hours.

7.2.4 Total Predicted Net Traffic Generation

Based upon the assumptions outlined in Sections 7.1, 7.2.1 and 7.2.2, the total predicted net traffic generation of the development (excluding the estimated volume of traffic generated by the existing development) is:

- Morning peak hour vehicle trips = 47 vehicle trips
- Evening peak hour vehicle trips = 44 vehicle trips

That is, the development is predicted to generate an additional one vehicle trip per 1 – 2 minutes on average, during the morning and evening peak hours (over and above the existing development on the subject site). These volumes are well within typical background traffic daily / seasonal traffic fluctuations. Furthermore, these volumes would distribute onto the surrounding road network, and be diluted as distance from the subject site increases. Accordingly, this level of traffic generation would be

able to be accommodated on the broader road network without any noticeable impacts upon the operation of intersections.

Notwithstanding the above, analyses of the proposed site access driveway have been undertaken, as outlined in the following section.

7.3 Site Access Performance

The proposed site access driveway on Marsden Street has been analysed to determine its performance during the morning peak period. The modelled background traffic volumes on Marsden Street were based upon the data in the report prepared by Varga Traffic Planning as part of the application for the proposed "Riverside Parramatta" Development, and the traffic volumes turning into and out of the access driveway have been estimated through the application of the following assumptions:

- Only traffic associated with the residential component of the development would use the Marsden Street access driveway. A 5% proportion of heavy vehicles has been assumed for all traffic movements turning into and out of the site.
- The arrival / departure split in the morning peak period is 20% arrivals / 80% departures.
- Traffic will to/from Marsden Street will distribute in accordance with the recorded directional splits of the background traffic on this road.

The application of the above assumptions leads to the predicted turning movement volumes as outlined in **Table 2** below.

Table 2: Predicted Turning Movement Volumes, Site Access Driveway, Marsden Street

Approach	Movement	Volume (AM Peak Hour)
Marsden Street Northbound	Through	498
	Right	6
Site Access Driveway	Left	20
	Right	26
Marsden Street Southbound	Left	5
	Through	372

The results of the modelling undertaken of the proposed site access driveway for the morning peak period are provided in **Table 3** below.

Table 3: Modelled Intersection Performance, Site Access Driveway (Morning Peak Period)

Movement Performance - Vehicles											
Mov ID	ODMov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: Marsden Street (South)											
2	T1	498	5.0	0.269	2.0	LOS A	2.3	16.5	0.55	0.01	57.6
3	R2	6	5.0	0.269	7.5	LOS A	2.3	16.5	0.55	0.01	55.2
Approach		504	5.0	0.269	2.1	NA	2.3	16.5	0.55	0.01	57.6
East: Site Access Driveway											
4	L2	20	5.0	0.091	13.4	LOS A	0.3	2.2	0.55	0.95	48.9
6	R2	26	5.0	0.091	12.9	LOS A	0.3	2.2	0.55	0.95	48.4
Approach		46	5.0	0.091	13.1	LOS A	0.3	2.2	0.55	0.95	48.6
North: Marsden Street (North)											
7	L2	5	5.0	0.200	5.6	LOS A	0.0	0.0	0.00	0.01	58.0
8	T1	372	5.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.01	59.9
Approach		377	5.0	0.200	0.1	NA	0.0	0.0	0.00	0.01	59.9
All Vehicles		927	5.0	0.269	1.8	NA	2.3	16.5	0.33	0.06	57.9

The modelling results provided above suggest that the performance of the site access driveway is predicted to be well within acceptable limits, with all movements operating at Level of Service A, and a maximum predicted queue of only 2.3 vehicles on the southern approach on Marsden Street.

Delays for vehicles exiting the site onto Marsden Street are also within acceptable limits at around 12 – 13 seconds.

In light of the above, and based upon the assumptions previously outlined, it is predicted that the proposed site access driveway will operate acceptably, and with a negligible impact upon the surrounding road network.

8. Summary and Conclusion

In summary:

- The planning proposal seeks approval for rezoning to accommodate a 46 storey building providing approximately 280 - 300 residential apartments and 200 hotel rooms, with ancillary hotel facilities of approximately 1,000m² GFA (noting that as a Planning Proposal, these yields are indicative only and any firm proposal would be the subject of a subsequent development application).

- All vehicular access is proposed via Marsden Street. This direction was taken following discussions with Council, and in light of the lack of certainty surrounding the detail and timing of the surrounding development which will rely upon access via, and may modify, Phillip Lane.

- Whilst the proposal does not rely upon access via Phillip Lane, the applicant proposes to work with Council and the applicant for the 'Riverside Parramatta' development to facilitate improvements to Phillip Lane, to improve the operation of this laneway, and enhance its character and appearance. To this end, the applicant has developed a concept which:

    - facilitates the widening of Phillip Lane at Phillip Street to improve traffic movements at this intersection;
    - provides a refuge for pedestrians to cross Phillip Lane at the Phillip Street intersection;
    - retains kerbside parking lane for the properties on the eastern side of Phillip Lane; and
    - enables the appearance and character of the street to be enhanced through streetscaping and landscaping treatments.

- The development is predicted to generate an additional one vehicle trip per 1 – 2 minutes on average, during the morning and evening peak hours (over and above the existing development on the subject site). These volumes are well within typical background traffic daily / seasonal traffic fluctuations. Furthermore, these volumes would distribute onto the surrounding road network, and be diluted as distance from the subject site increases. Accordingly, this level of traffic generation would be able to be accommodated on the broader road network without any noticeable impacts upon the operation of intersections on the surrounding road network.

- The proposed site access driveway on Marsden Street was analysed to determine its performance during the morning peak period. The modelling results suggest that the performance of the site access driveway is predicted to be well within acceptable limits, with a degree of saturation of 27% (noting the theoretical threshold for acceptable performance is 80% - 90%), and a maximum predicted queue of only 2.3 vehicles on the southern approach on Marsden Street. Delays for vehicles exiting the site onto Marsden Street are also within acceptable limits at around 12 – 13 seconds.

- The proposed parking provisions (to be finalised at Development Application Stage) will be consistent with the requirements of Council's LEP, which stipulates maximum parking rates for the relevant uses. The current concept plans show a total of 215 car parking spaces to service 280 – 300 residential units, which is well within Council's maximum control of one parking space per unit.

- One accessible parking space is to be provided for each adaptable unit within the residential component of the development. As shown in the current concept plans, these parking spaces are configured in accordance with the requirements of AS2890.6, and located in close proximity to lifts for ease of access.

- The servicing arrangements proposed are considered to be consistent with the intent of Council's DCP and represent a feasible alternative solution to the standards, recognising the constrained nature of the site and the desire to minimise the impact of service vehicle access provision upon the activated pedestrian / outdoor dining area on the ground level.

Whilst the traffic design elements of the proposal would be refined if necessary and/or finalised at development application stage, it is concluded that the planning proposal is supportable on traffic planning grounds, and should be approved from a traffic perspective.

APPENDIX A

Photographic Record

View of Building at 10 Phillip Street, from Lennox Bridge Car Park

Phillip lane, looking from Lennox Bridge Car Park (towards Phillip Street)

Phillip lane, looking southbound towards Phillip Street

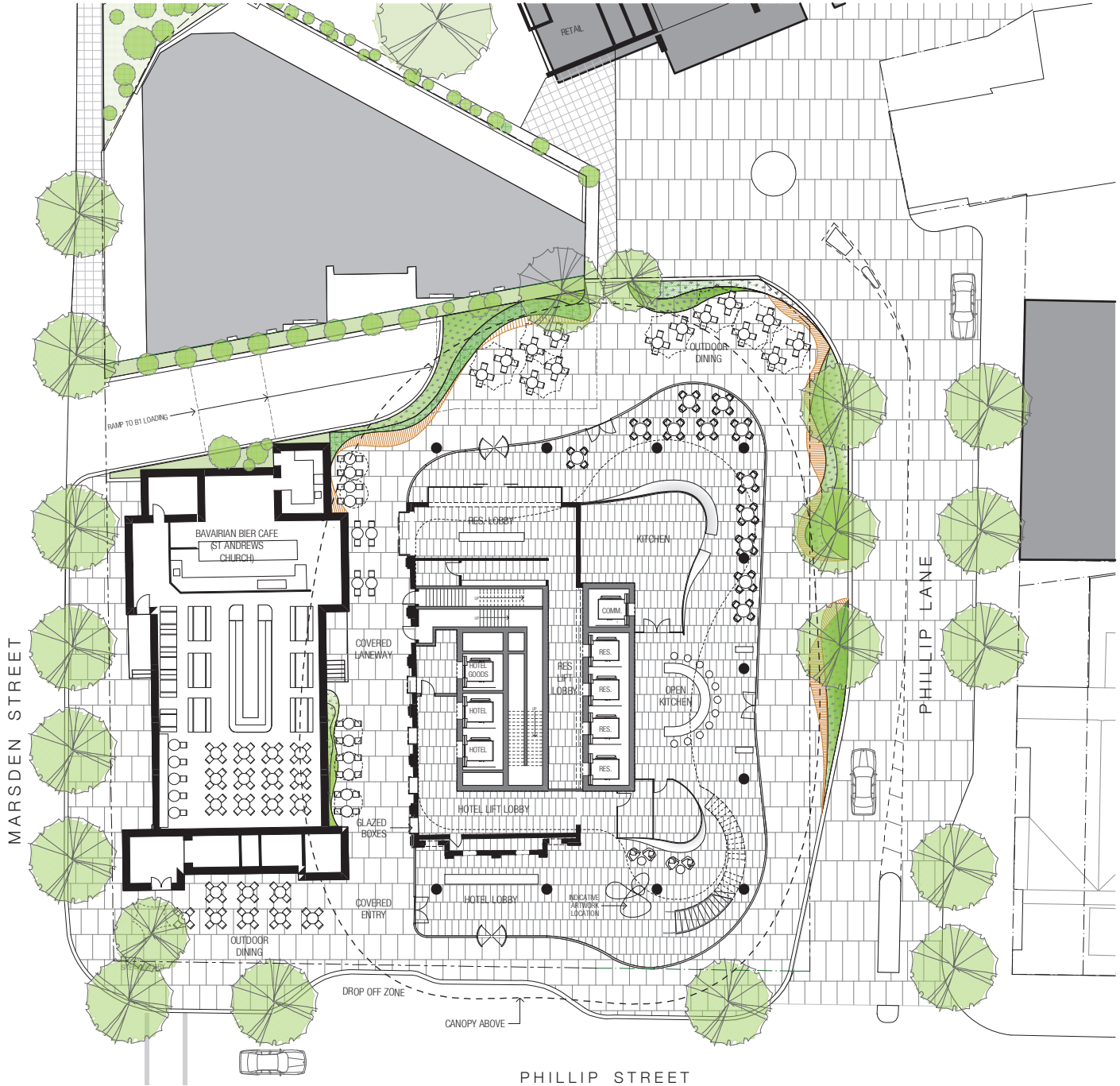
(Former) St Andrews Church, now part of Bavarian Bier Café, Corner of Phillip Street and Marsden Street

(Former) St Andrews Church Hall, now part of Bavarian Bier Café, with Commercial Building on 10 Phillip Street adjacent

Marsden Street looking northbound from Phillip Street, towards proposed site access driveway location

APPENDIX B

Reduced Plans



1 PLAN - GROUND FLOOR
SCALE 1:150

WOODS BAGOT™

CORONATION PROPERTY PHILLIP ST, PARRAMATTA PLANS - GROUND FLOOR PLAN

Project number	Date generated	Scale
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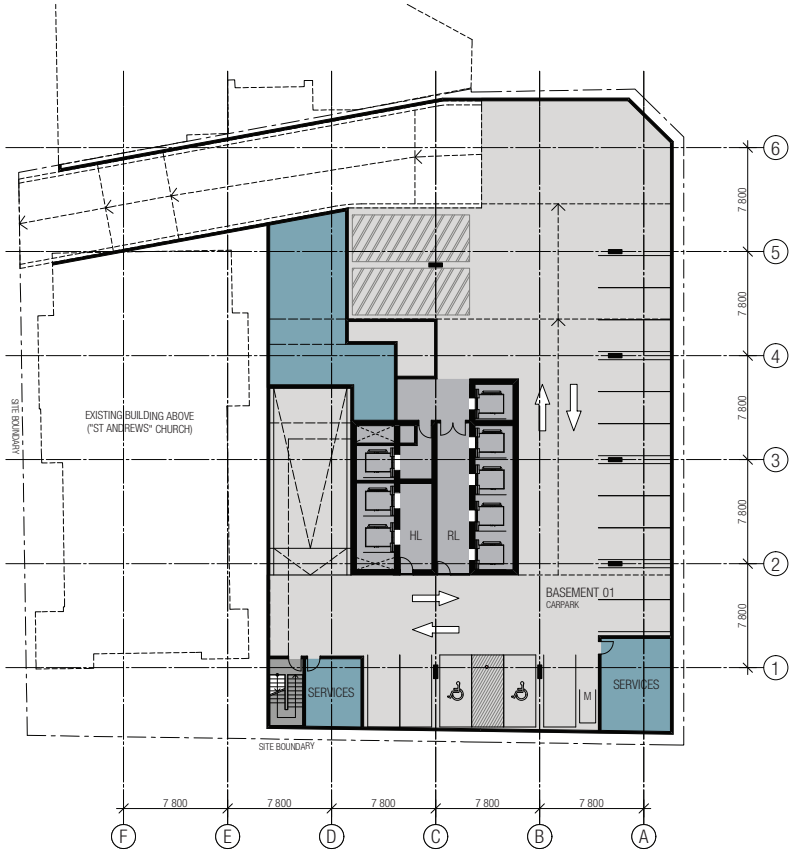
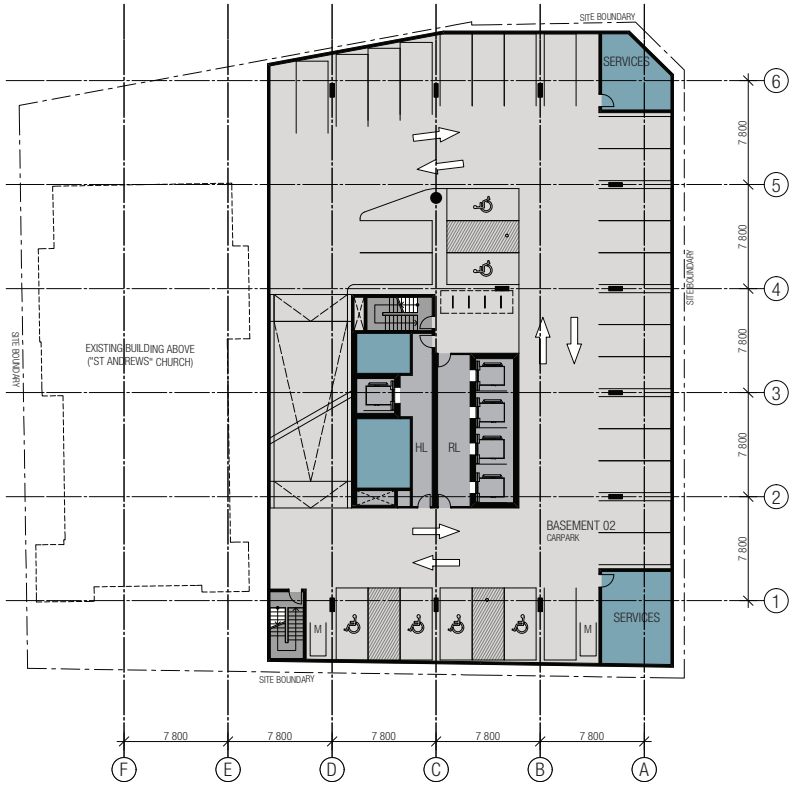
Drawing number	Revision	
SK0204	**A**	



01 PLAN - BASEMENT 01
SCALE 1:200



02 PLAN - BASEMENT 02
SCALE 1:200

WOODS BAGOT

CORONATION PROPERTY PHILLIP ST, PARRAMATTA PLANS - BASEMENT 01 & 02

Project number	Date generated	Scale
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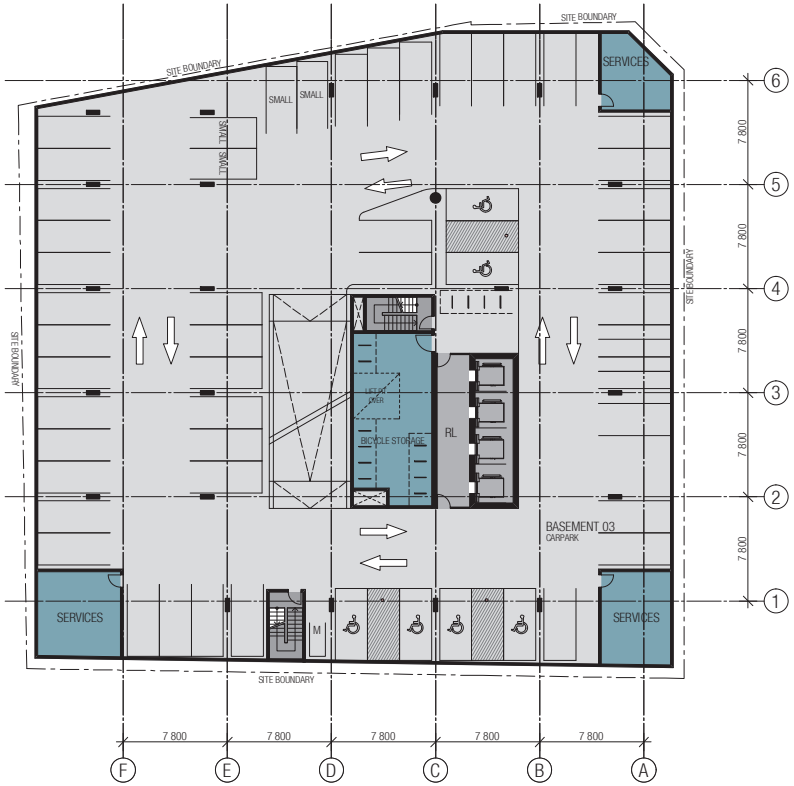
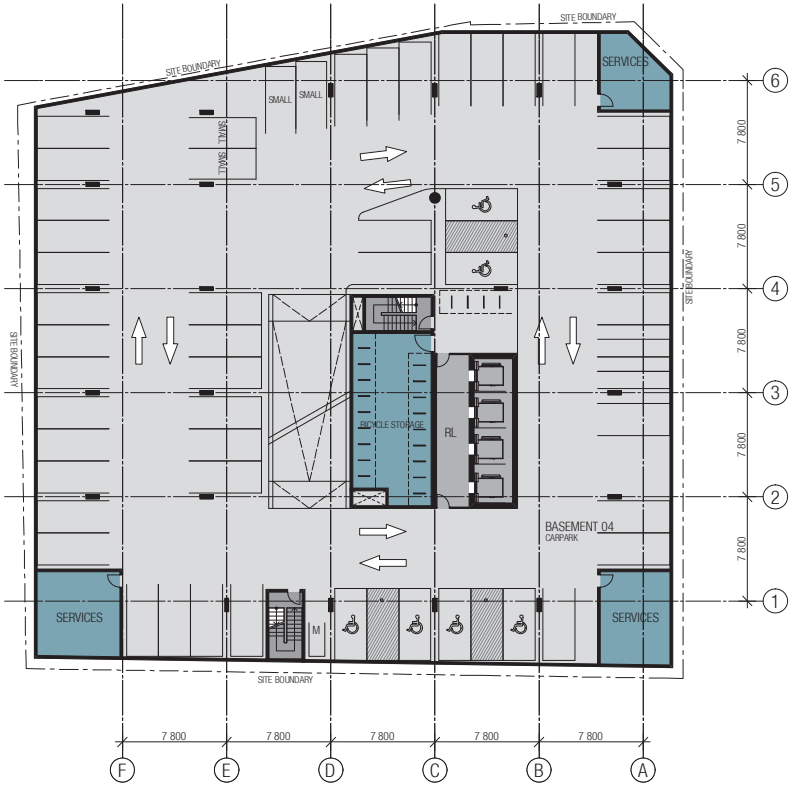
Drawing number	Revision	
SK0202	**A**	



01 PLAN - BASEMENT 03
SCALE 1:200



02 PLAN - BASEMENT 04
SCALE 1:200

WOODS BAGOT

CORONATION PROPERTY PHILLIP ST, PARRAMATTA PLANS - BASEMENT 03 & 04

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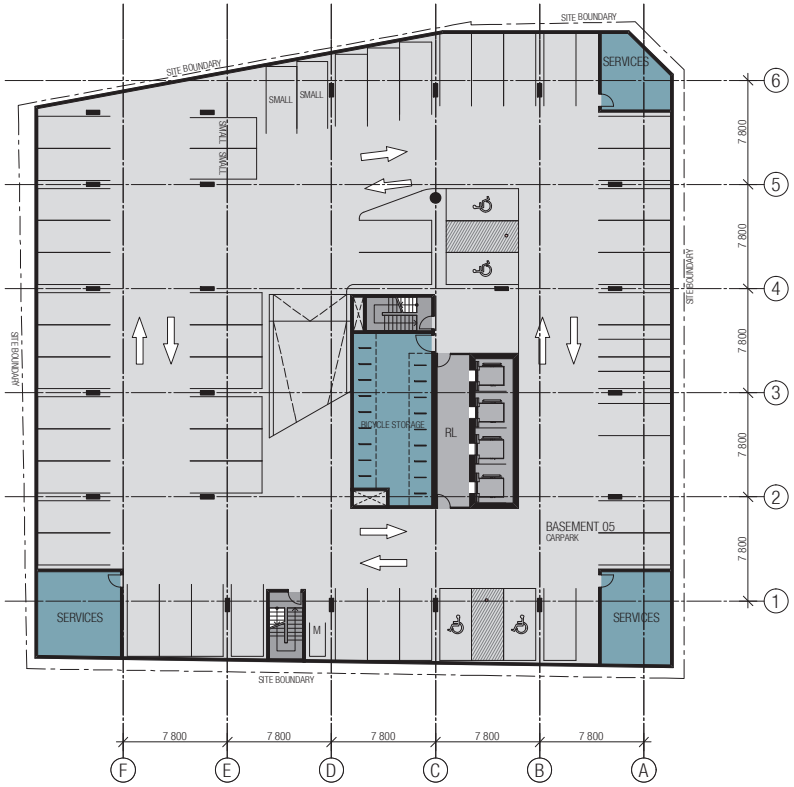
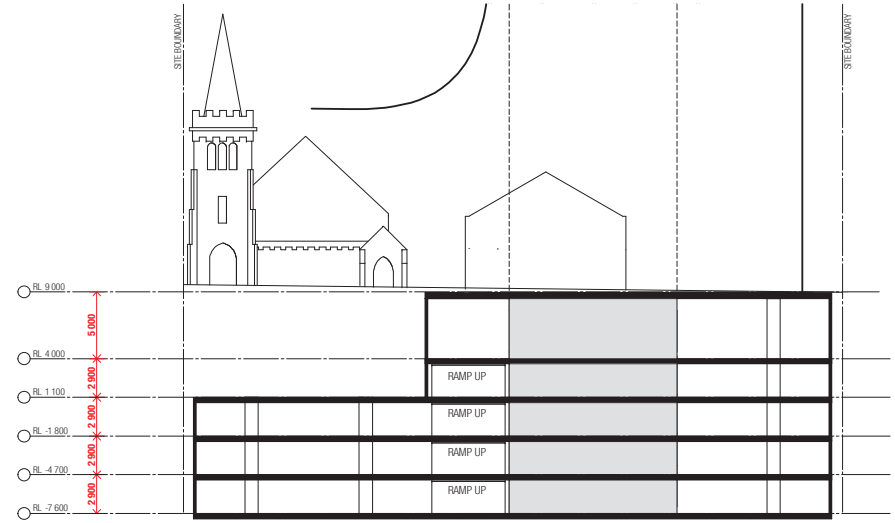
Drawing number	Revision	
SK0201	**A**	

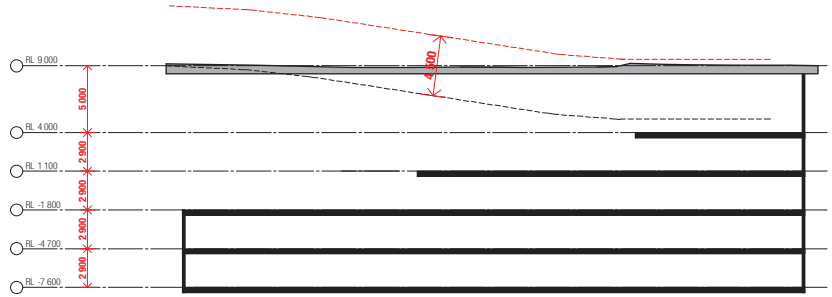


01 PLAN - BASEMENT 05
SCALE 1:200

TOTAL NO. OF CAR SPACES **56**



02 SECTION 01
SCALE 1:200



03 SECTION 02
SCALE 1:200

CORONATION PROPERTY PHILLIP ST, PARRAMATTA PLANS - BASEMENT 05

Project number	Date generated	Scale
120458	**26-08-14**	**1:200 @ A0**
Drawing number	Revision	
SK0200	**A**	

APPENDIX C

Swept Path Analyses - Access Driveway (8.8m Medium Rigid Vehicle)

1:200 @ A3


BERNIE
MARSDEN ST
SITE BOUNDARY
SITE BOUNDARY
MRV - Medium Rigid Vehicle
MRV - Medium Rigid Vehicle
ST ANDREWS CHURCH
COVERED LANEWAY
RECEPTION
OFFICE
MAIL BOXES
KITCHEN
HOTEL GOODS
HOTEL
HOTEL
RESIDENTIAL
RESIDENTIAL
RESIDENTIAL
RESIDENTIAL
LIFT LOBBY
OPEN KITCHEN
HOTEL LIFT LOBBY
LUGGAGE OFFICE
RECEPTION
HOTEL LOBBY
+9.300

Appendix 4 – Voluntary Planning Agreement Letter of Offer

MECONE

urban and environmental planning
project management
development advisory

29 August 2014

The General Manager
Parramatta City Council
30 Darcy Street
Parramatta NSW 2150

Dear Sir,

Re: Letter of offer for proposed Voluntary Planning Agreement – 2-10 Phillip Street, Parramatta

I am writing on behalf of Coronation Property Co Pty Ltd to provide a letter of offer for a Voluntary Planning Agreement associated with the proposed rezoning of the site at 2-10 Phillip Street, Parramatta. The rezoning and redevelopment of the site will assist Parramatta Council in delivering the Riverside Entertainment Precinct and achieving its State Government housing targets. The proposal will provide hotel accommodation, retail and business uses.

There are a number of material public benefits to be delivered through the rezoning of the site which include:

- Dedication of land on the eastern boundary of the lot, being approximately 50sqm at Phillip Street and 15sqm at the north eastern corner of the lot, to enable improved vehicular access along Phillip Lane.
- Provision of a set down/taxi zone on Phillip Street for both the hotel use on 2-10 Phillip Street and to service the Riverside development including function centre.
- Contribution to river foreshore upgrade works at an agreed rate or in kind contribution to be further discussed or negotiated with Council.
- Contribution to precinct Close Circuit Television (CCTV) program at an agreed rate or in kind contribution to be further discussed or negotiated with Council.

We propose the following next steps:

- Council consider this offer and provide any initial comments back to the proponent.
- Proponent to consider Council comments on letter of offer and provide more detailed costings.
- The services of a lawyer will be engaged to draft the VPA in line with Council's standard VPA (if any).
- VPA negotiated and exhibited with the planning proposal.

We would be happy to provide a briefing on the proposed public benefits to any Council staff as required. We look forward to working cooperatively with Council to achieve a high quality development that provides significant public benefits. If you have any queries please do not hesitate to contact me on 8667 8668.

Yours sincerely,

Aras Labutis

Prepared by Parramatta City Council

PARRAMATTA WE'RE BUILDING AUSTRALIA'S NEXT GREAT CITY