4-6 Bligh Street, Sydney

Traffic Assessment

Prepared for:

Recap Investments

17/08/2017

The Transport Planning Partnership

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1 Introduction

The Transport Planning Partnership (TTPP) Pty Ltd has prepared this traffic impact assessment report on behalf Recap Investments to accompany a Planning Proposal to be lodged with City of Sydney Council (CoPC).

The Planning Proposal seeks approval to increase the maximum Floor Space Ratio (FSR) applicable to the site at 4-6 Bligh Street, Sydney, from a base FSR of 8:1 plus bonuses to a maximum FSR of 22:1 including bonuses.

The indicative architectural scheme comprises:

- 10 storey podium, including hotel entrance lobby, commercial lift lobby, food and beverage (F&B) facilities, plant, commercial offices, meeting/conference rooms, gym space, and landscaped podium with formal hotel lobby
- 37 storeys of hotel (each level including 11 rooms, with a total of 407 rooms)
- 4 levels at rooftop including hotel club lounge, function space, restaurant and bar, and publicly accessible landscaped terrace
- 4 basement levels including 17 car parking spaces, 2 loading spaces, plants, end of trip facilities and waste management facilities

At this stage, the proposed development is set to comprise the following indicative uses for traffic analysis purposes:

- Commercial 5,004m^2 GFA
- Hotel 407 rooms (including 642m^2 GFA of Hotel F&B)
- Retail / F&B 526m^2 GFA
- Gym 1,451m^2 GFA
- Function room 444m^2 GFA

The report assesses the traffic implications associated with the proposed development.

The remainder of the report is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the subject site
- Chapter 3 provides strategic context of the future planned upgrades surrounding the site
- Chapter 4 provides a brief description of the proposed development
- Chapter 5 examines the traffic generation and resultant traffic implications arising from the proposed development
- Chapter 6 presents a green travel plan framework for the site

- Chapter 7 assesses the proposed on-site parking provision and internal layout
- Chapter 8 presents the conclusions of the assessment.

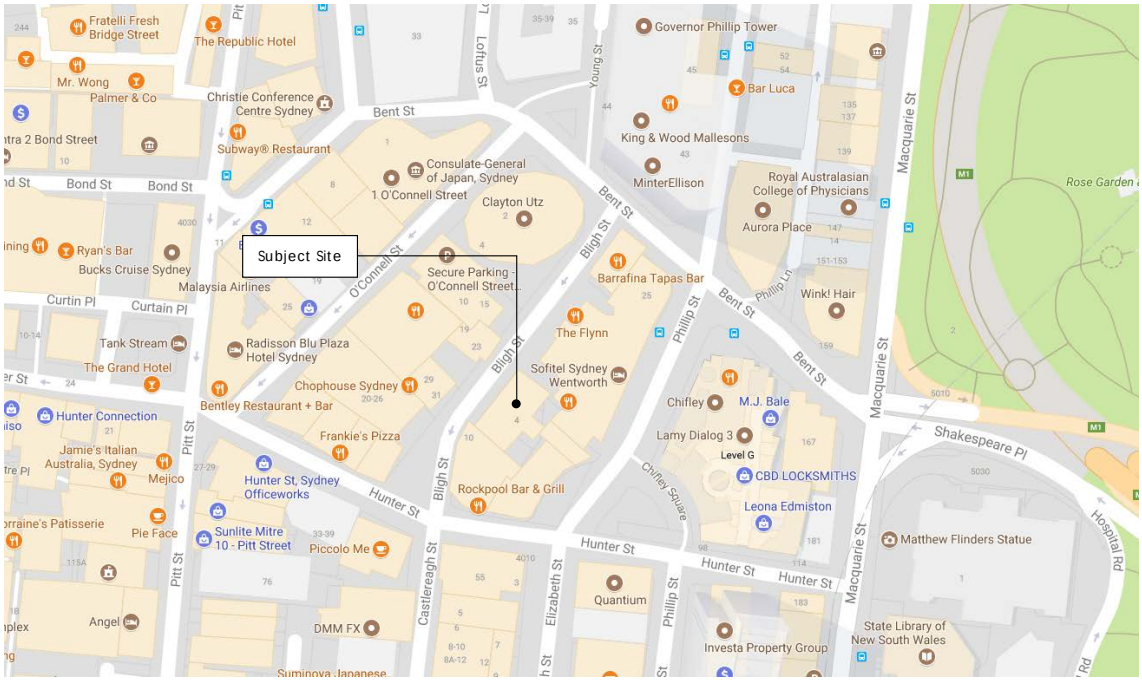
2 Existing Condition Assessment

2.1 Site Description

The subject site is located at 4-6 Bligh Street and falls within the local government area of City of Sydney. It is currently occupied by a mixed-use development, comprised of commercial uses with ground floor retail / F&B tenancies. In addition to this, a basement car park is currently provided accommodating some 21 car spaces.

A locality map of the subject site is shown in Figure 1.

Figure 1: Locality Map



Source: Google Maps Australia

Land uses surrounding the site predominately comprise of mixed commercial, retail, restaurant and hotel uses along Bligh Street. In addition to this, it is noted that the site is centrally located within Sydney CBD and close proximity to high frequency public transport services, notably the Wynyard and Martin Place railway stations.

2.2 Abutting Road Network

The subject site fronts Bligh Street along the west boundary and is surrounded by a number of local roads, including Bent Street and Hunter Street to the north and south, respectively. A brief description of these roads is provided below.

2.2.1 Bligh Street

Bligh Street functions as a one-way southbound local road, generally aligned in a north-south direction. The road is generally configured with three lanes, with kerbside car parking and bus zone restrictions provided on either side. The road provides southbound connectivity from Bent Street to Hunter and Castlereagh Streets, with traffic signals provided on both Bent Street and Hunter Street intersections. In addition to this, it is noted that vehicle access to the existing site is currently provided off Bligh Street.

2.2.2 Hunter Street

Hunter Street functions as a two-way local road and travels in an east-west alignment. The road is generally configured with four lanes and extends between Macquarie Street and George Street. Ticketed kerbside car parking is generally provided along one side or both sides of the road.

2.2.3 Bent Street

Bent Street functions as a local road, generally aligned in an east-west direction. The road is generally configured with four lanes and extends between Macquarie Street and Pitt Street. The street provides direct vehicle access to Bligh Street along the northern end via traffic control signal arrangements.

2.3 Existing Vehicle Access

As indicated previously, vehicle access to the existing site is currently provided directly off Bligh Street via a single 2.6m wide driveway. Vehicle access is currently restricted by a security gate under one-lane, two-way access arrangements. The existing driveway provides direct access to the basement car park, comprised of some 21 car parking spaces.

In addition to this, it is noted that no service vehicles are currently permitted to the basement car park and thus, all associated loading and unloading activities are understood to be currently carried out via existing on-street Loading Zones along Bligh Street.

The existing driveway is shown in Figure 2.

Figure 2: Existing Access Driveway

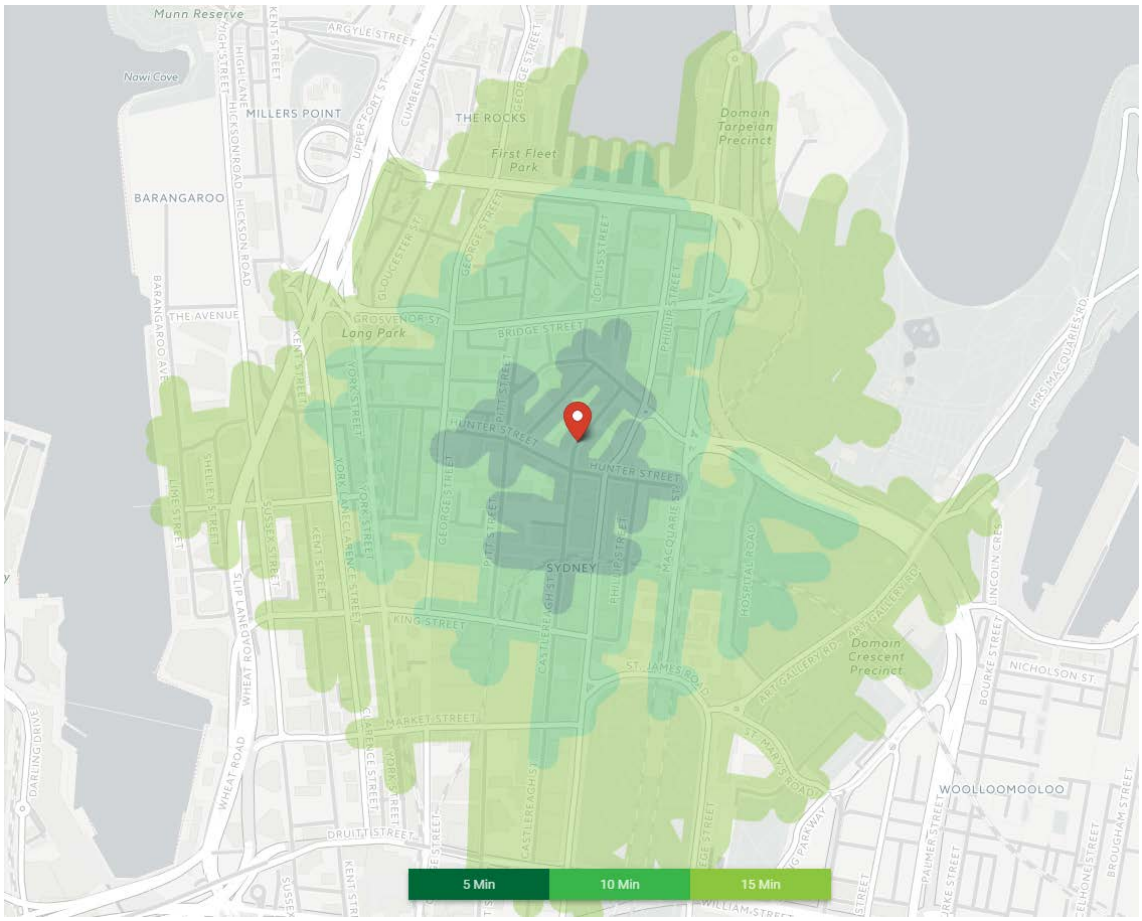
It is noted that the existing vehicle access has limited sight distance for egress vehicle movements, but was observed to operate satisfactory.

2.4 Pedestrian Infrastructure

Well-established pedestrian facilities are provided within the immediate vicinity of the site to provide good pedestrian access within the Sydney CBD. Paved pedestrian footpaths are generally provided on both sides of surrounding streets to provide good pedestrian connectivity between the site and wider Sydney CBD pedestrian network. In addition to this, signalised pedestrian crossings are provided on all legs at Hunter Street-Bligh Street and Bent Street-Bligh Street intersections.

The pedestrian catchment within a 15-minute walking distance from the site is shown in Figure 3.

Figure 3: Pedestrian Catchment Surrounding Site (15-minute walking distance)



Source: Route360

In addition to this, the existing pedestrian footpaths on Bligh Street are presented in Figure 4 and Figure 5.

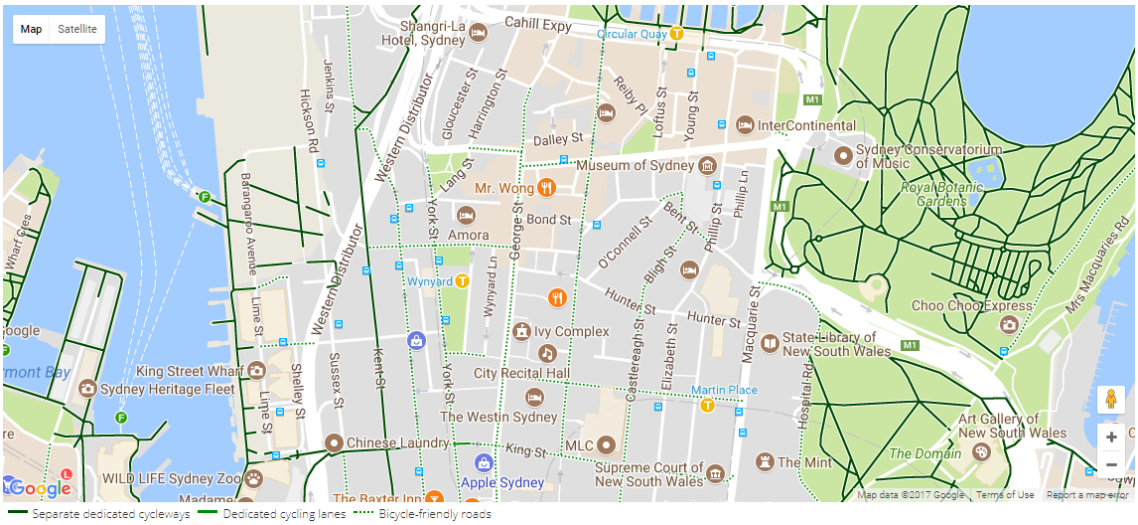
Figure 4: Bligh Street footpath (west side)

Figure 5: Bligh Street footpath (east side)

2.5 Cycle Infrastructure

No signage or line-marking is currently provided within the immediate vicinity of the site to indicate any dedicated cycleways. However, Bligh Street is a recognised bicycle-friendly road in accordance with Sydney Cycleways, with the cycle route map shown in Figure 6.

Figure 6: Existing Cycling Route Map



Source: Sydney Cycleways < [*http://www.sydneycycleways.net/map/*](http://www.sydneycycleways.net/map/)*>*

2.6 Public Transport Facilities

The subject site is located within a 500m catchment radius from the Wynyard and Martin Place railway stations, providing convenient access to a number of high frequency public transport services, pertinently rail and bus services.

These railway stations provide good transport connectivity between the Sydney CBD and surrounding Sydney suburbs, with the following rail line services provided:

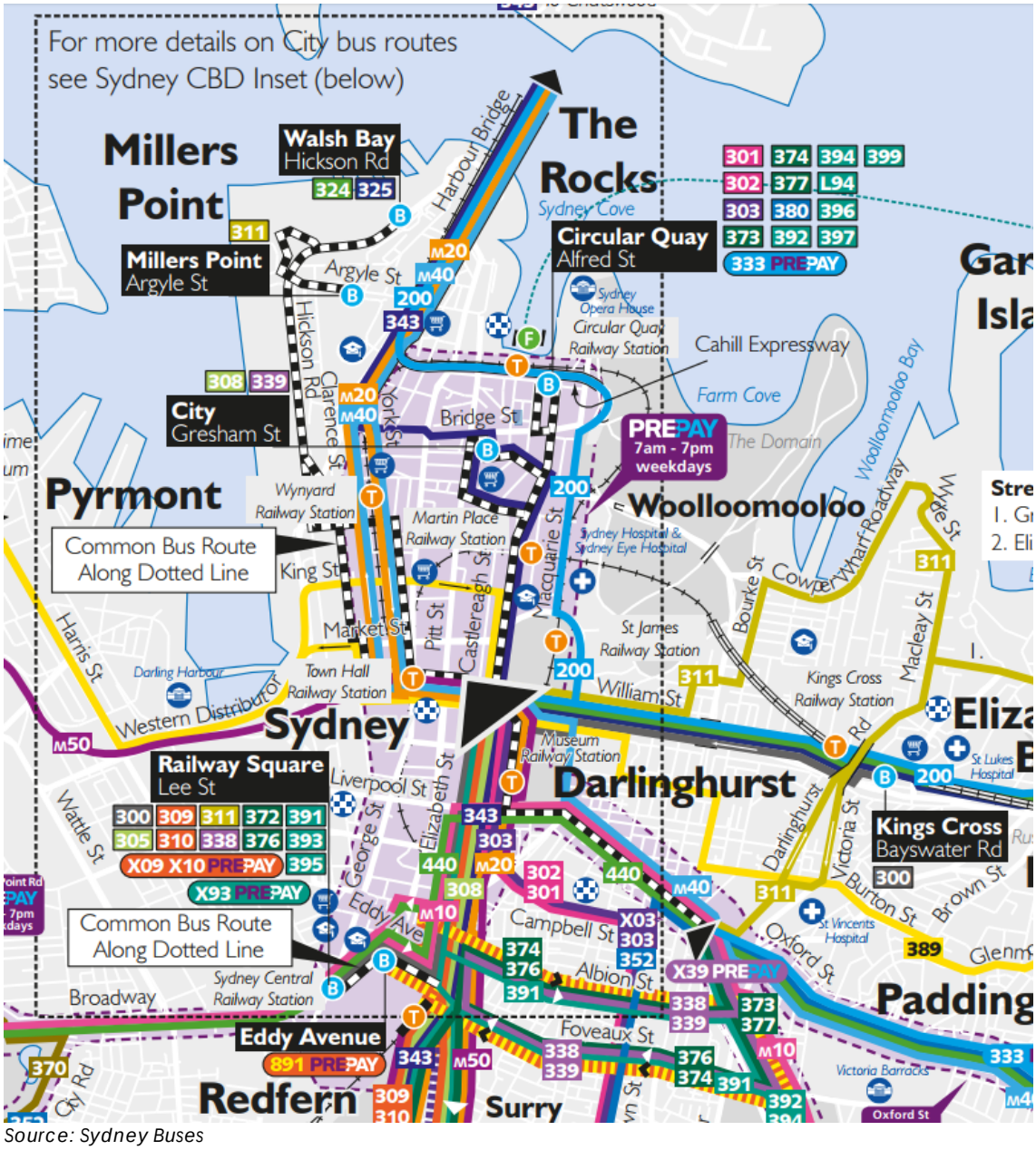
- T1 North Shore, Northern and Western Line
- T2 Airport Line, Inner West & South Line
- T3 Bankstown Line
- T4 Eastern Suburbs & Illawarra Line
- Central Coast & Newcastle Line
- Southern Highlands Line

These rail line services typically operate every 5-15 minutes during peak periods to provide good connectivity to surrounding Sydney suburbs, especially for commuters travelling to/from the Sydney CBD via Wynyard railway station.

In addition to the above, over 30 bus routes currently operate within the vicinity of the site, including a number of high frequency metrobuses such as M20 and M40 bus routes.

The existing bus network map is shown in Figure 7.

Figure 7: Existing Bus Network Map



Source: Sydney Buses

2.7 Journey to Work Data

Journey to Work (JTW) data from the Bureau of Transport Statistics (BTS), derived from the 2011 Census, has been obtained to understand existing transportation modes to and from the subject site. A summary of the mode splits of transportation is presented in Table 1.

Table 1: Existing Travel Mode Splits

Mode of Travel	Proportion (%)
Train	42%
Bus	23%
Ferry/Tram	4%
Vehicle Driver	13%
Vehicle Passenger	2%
Walked Only	5%
Other mode [1]	11%

[1] Other mode includes mode not stated, worked at home or did not go to work

Table 1 indicates that the majority of employees generally travel via train or bus to commute to/from work in the area. In addition to this, some 15% of employees within the area were found to travel via car.

2.8 Traffic Volumes

TTPP has conducted a traffic count on Thursday, 11 May 2017 between 6:30am-9:30am and 3:30pm-6:30pm at the following key surrounding intersections:

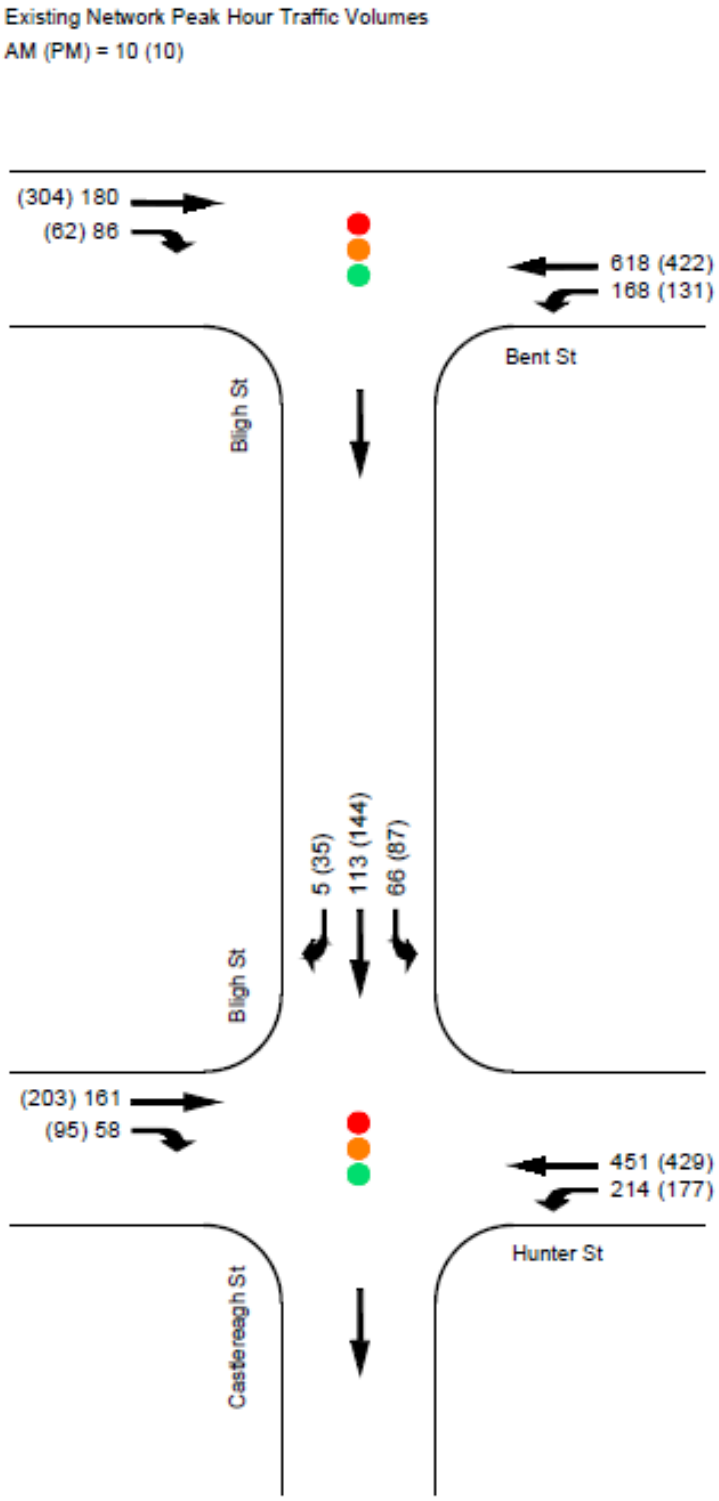
- Hunter Street-Bligh Street
- Bent Street-Hunter Street.

Based on these traffic surveys, the following network peak periods were identified:

- 8:30am-9:30am (morning peak period)
- 5:00pm-6:00pm (evening peak period)

A summary of the network peak traffic flows surrounding the site is shown in Figure 8.

Figure 8: Network Peak Hour Traffic Volumes



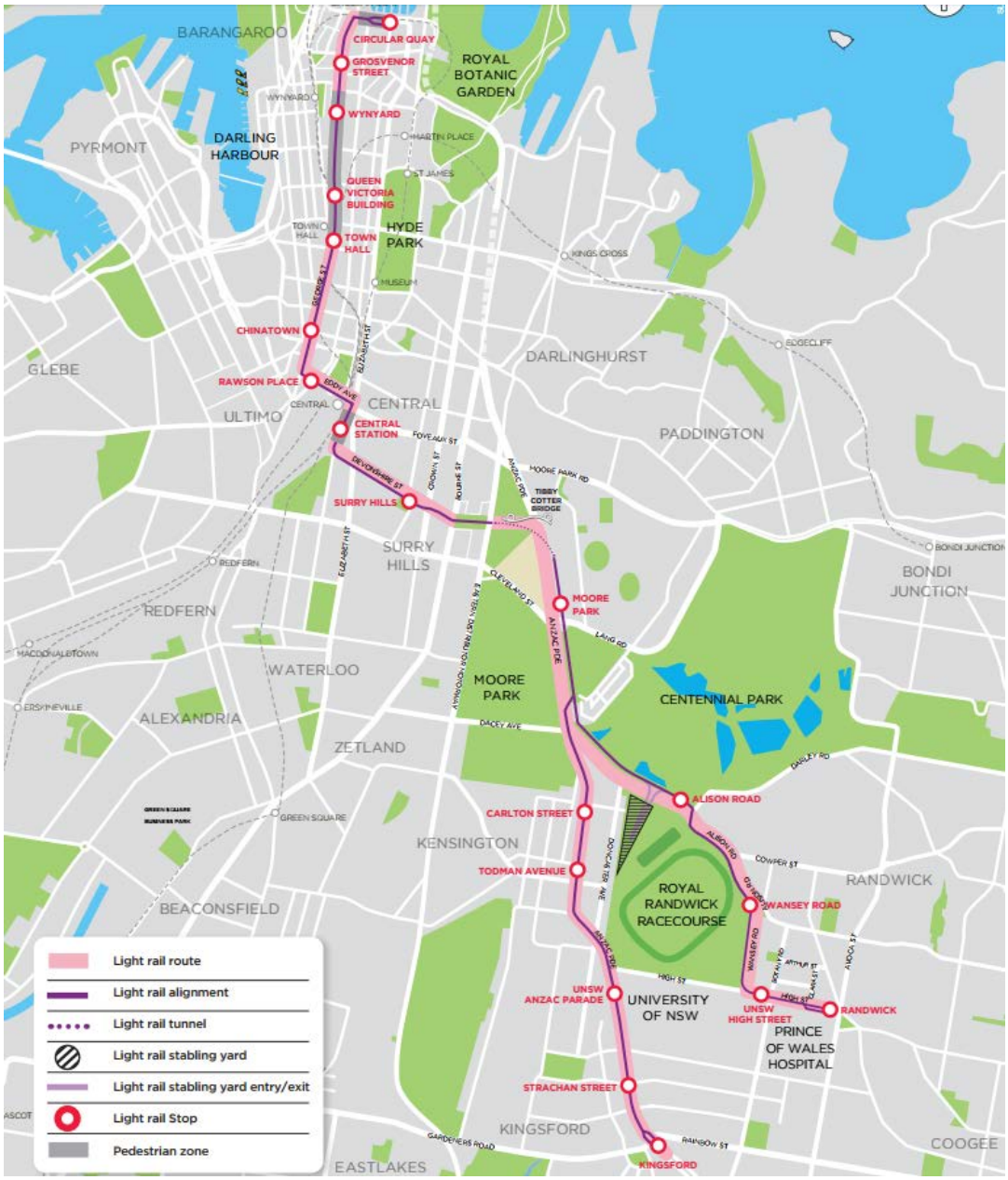
3 Key Strategic Planned Projects

3.1 Sydney Light Rail

The CBD and South East Light Rail corridor is currently under construction and expected to be operational in 2019. The light rail corridor extends for 12km between Circular Quay to Randwick via Central Station and Kensington.

The CBD and South East Light Rail route and stop locations is shown in Figure 9.

Figure 9: CBD and South East Light Rail route



Source:mysydney.nsw.gov.au

Further to this, it is noted that road closures are now in place to facilitate construction of the light rail, including road closures on George Street, between Liverpool Street and Grosvenor Street.

Notwithstanding the above, following completion of the CBD and South East Light Rail, light rail services are expected to operate every four minutes during peak periods, with additional special event services between Central and the Moore Park and Alison Road stops.

With this in mind, the proposed development site will most likely benefit from the delivery of the CBD and South East Light Rail, particularly providing better connectivity to surrounding suburbs, including Randwick and Kingsford areas.

3.2 Sydney Metro

The Sydney Metro Northwest project is the first stage (Stage 1) of the Sydney Metro and will be the first fully-automated metro rail system in Australia. The project is set to deliver eight new railway stations and 4,000 commuter car parking spaces and extent between Rouse Hill and Chatswood.

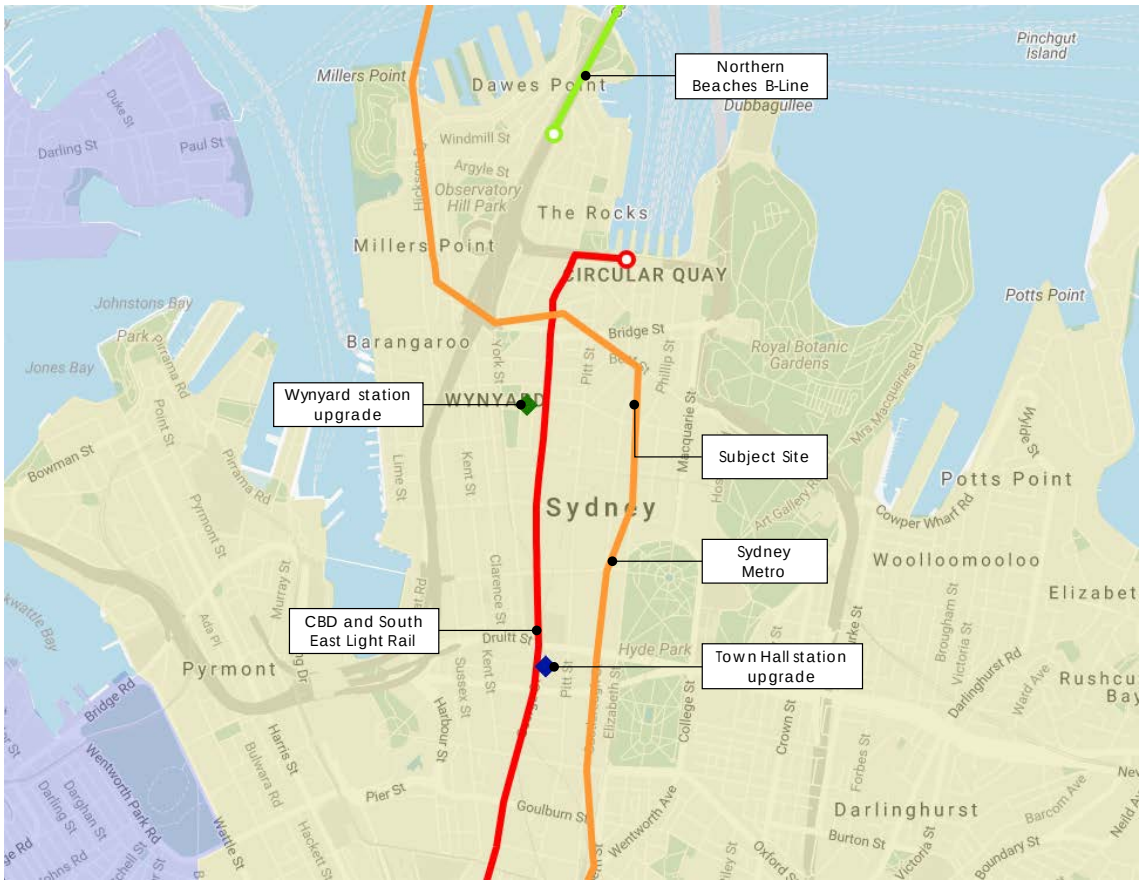
Stage 2 of the Sydney Metro project (City and South West) will deliver new stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo with new underground platforms at Central Station. In addition to this, planning approvals are currently underway for the upgrade and conversion to the T3 Bankstown Line to metro standards between Sydenham and Bankstown.

The Sydney Metro is anticipated to provide additional capacity, with an increase of some 60% capacity across the network, to help meet existing and future demand, particularly to key rail bottleneck locations such as Bankstown.

Further to the above, it should be noted that the Sydney Metro route will run via Bligh Street to provide connectivity between Chatswood and Bankstown.

The Sydney Metro route and all other surrounding planned projects is shown in Figure 10.

Figure 10: Strategic Surrounding Projects



Source: mysydney.nsw.gov.au

4 Proposed Development

4.1 Proposal Description

The proposed development involves the construction of a mixed-use development, primarily comprised of commercial, hotel, gym and ground floor retail/F&B and upper ground floor function room uses at 4-6 Bligh Street, Sydney.

As indicated previously, the proposed development is envisaged to comprise of the following uses:

- Commercial 5,004m^2 GFA
- Hotel 407 rooms (including 642m^2 GFA of Hotel F&B)
- Retail / F&B 526m^2 GFA
- Gym 1,451m^2 GFA
- Function room 444m^2 GFA

In addition to this, a four-level basement car park is proposed to serve the development and contains 17 car parking spaces and two loading spaces.

The architectural layout plans are provided in Appendix A.

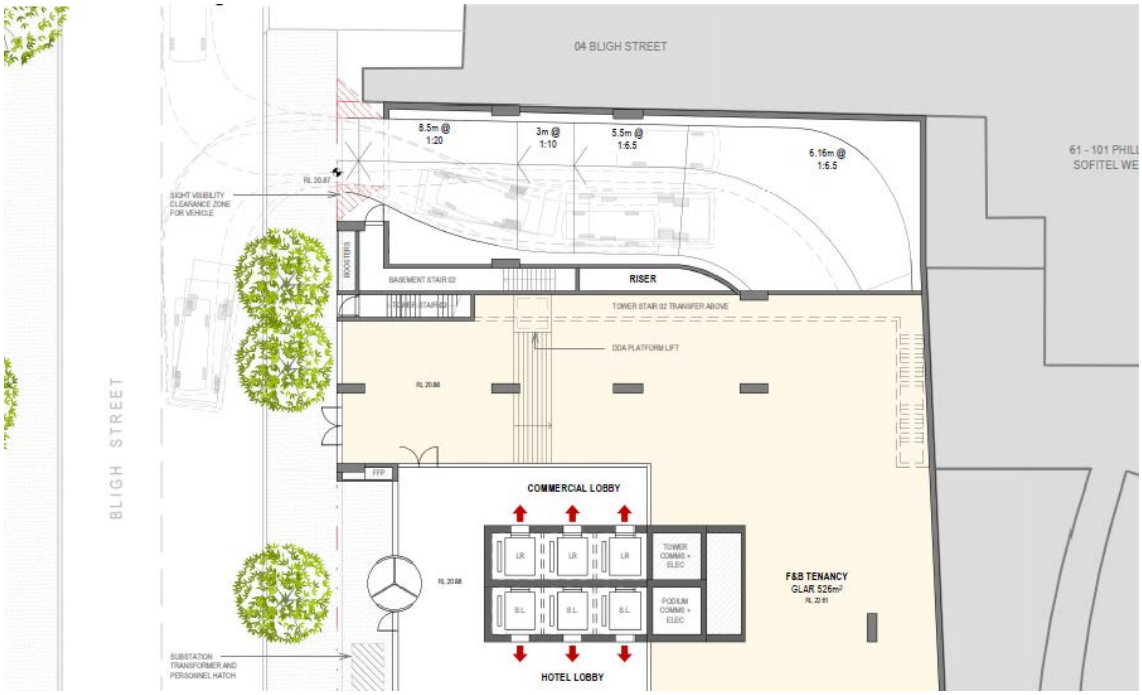
4.2 Vehicle Access

Vehicle access to the proposed development will be provided directly off Bligh Street, much like the existing vehicle access arrangements. However, as part of the proposed development, it is proposed to relocate the existing driveway from the southern to northern end of the site, noting that the existing driveway will be replaced with kerb and gutter to match the existing road conditions.

The proposed new driveway will operate under one-lane two-way access arrangements, with appropriate sight triangles provided on either side of the driveway. This one-lane arrangement is not considered unusual, especially in the Sydney CBD, and has been designed with appropriate holding bays within the site to ensure minimal disruption on the surrounding road network.

The proposed access arrangements are shown in Figure 11.

Figure 11: Proposed Driveway Access Arrangements



Source: Architectus

The proposed driveway will provide direct vehicle access to the basement car park, which contains 17 car parking space and two loading spaces.

Notwithstanding this, it is noted that outbound vehicle movements will be required to give way to oncoming vehicle movements to provide priority for inbound vehicles and ensure that queues do not overspill onto the road. Further to this, a conflict analysis (which works out the statistical chance of a vehicle entering the site at the same time as one leaving the site) has been undertaken based upon the projected arrival and departure rates, which shows that the probability of a conflict occurring along the one-lane access is less than 0.1%, which can be considered negligible.

Thus, the proposed vehicle access arrangements are considered satisfactory.

5 Traffic Assessment

5.1 Proposed Development Traffic Generation

As indicated previously, the proposed development is envisaged to comprise of the following uses:

- Commercial 5,004m² GFA
- Hotel 407 rooms
- Retail / F&B 526m² GFA
- Gym 1,451m² GFA
- Function room 444m² GFA

It is proposed to provide 17 car parking spaces to serve the proposed development. These car parking spaces will be shared amongst all tenancies of the building and be managed under leasing agreements.

Based on the locality of the site, patronage of the proposed development is expected to primarily be generated from walk-in trips and/or non-car travel modes due to the limited car parking availability and the site's proximity to high frequency public transport services. In addition to this, the proposed gym and retail uses would not be likely to generate any independent vehicle trips.

Further to this, all car parking associated with the proposed development should be managed under a booking system to ensure appropriate car park allocation of all guests and patrons to the site. All staff and employees would be encouraged and expected to use public transport services to travel to/from the site at all times.

On the above basis, the proposed development is expected to generate a modest level of vehicular traffic. However, for the purpose of estimating the traffic generation associated with the development, it has been conservatively assumed that the site would generate in the order of one vehicle trip per car space during peak periods.

In addition to this, the traffic distribution of the proposed development traffic has been assumed to be as follows:

- Morning peak: 60% inbound trips / 40% outbound trips
- Evening peak: 40% inbound trips / 60% outbound trips

Taking this into consideration, the proposed development could be expected to generate up to 17 trips in the peak hour that being:

- Morning peak: 10 inbound and 7 outbound trips
- Evening peak: 7 inbound and 10 outbound trips

In addition to this, it should be noted that hotel developments generally generate low levels of vehicular traffic, with a high proportion of taxi pick up/drop-offs. Given the transient nature of the proposed hotel use, traffic movements typically vary throughout the day, generally with site peak traffic generated before 10am and after 2pm (typical check-out and check-in times of such developments).

Based on this, TTPP has conducted traffic generation surveys at a comparable development at the Lumiere/Fraser Suites development at 101 Kent Street, Sydney, to determine the number of vehicles (e.g. taxis) dropping off and/or picking up passengers along the frontage of the site.

The Lumiere/Fraser Suites development is understood to include the following uses:

- 447 residential apartments
- 140 hotel rooms/serviced apartments
- 3,048m² of commercial floor area
- 5,331m² of retail floor area.

The traffic survey was conducted on Wednesday, 24 May 2017, for a 24-hour period at the existing drop off zone along the frontage of the site, with the number of pick up and/or drop offs recorded every 15-minute interval.

The results of the survey are summarised in Figure 12.

Figure 12: Traffic Generation of Pick Up/Drop Offs

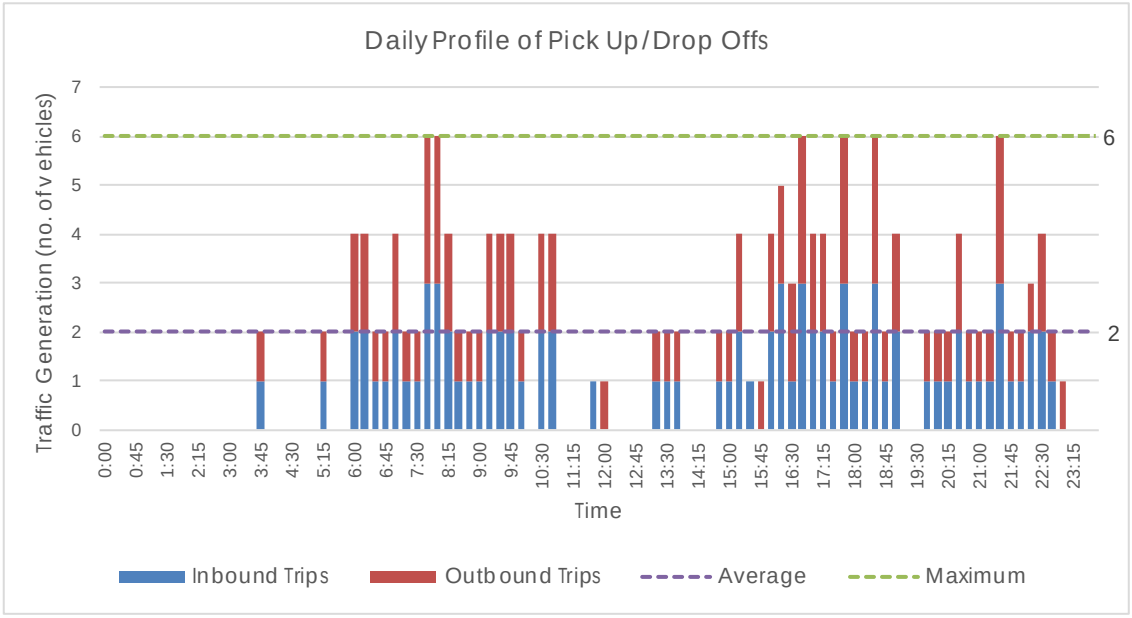


Figure 12 indicates that the existing Lumiere/Frasers Suites development generates a moderate level of pick up and drop off traffic, generally in the order of 2-6 two-way

vehicles movements in any given 15-minute period. This equates to some 8-24 vehicles per hour.

Assuming that all pick up and drop offs are generally associated with the existing hotel / serviced apartment use, this would equate to an average trip generation rate of 0.11 vehicle trips per hotel room/serviced apartment.

Using this metric, the proposed development could be expected to generate some 45 pick up and drop off vehicle trips per hour. In this regard, the total traffic generation associated with the proposed development is summarised in Table 2.

Table 2: Proposed Development Traffic Generation Estimates

Description	Size (No. of Car Parking Spaces / No. of Rooms)	Trip Rate	Trip Generation Estimate (Two-Way)
Proposed Development Site Traffic	17 car parking spaces	1 trip per car space	17 vehicle trips
Hotel Pick up and Drop offs	407 hotel rooms	0.11 trips per hotel room	45 vehicle trips
Total			**62 trips**

Table 2 indicates that the proposed development could generate up to 62 two-way vehicle trips in the peak hour. The proposed development traffic has been distributed on the surrounding road network based on JTW data and with consideration of the future Sydney Light Rail corridor, with the development traffic flows shown in Figure 13..

A summary of the projected network peak hour traffic flows (i.e. existing traffic flows plus development traffic) is presented Figure 14.

Figure 13: Proposed Development Traffic Only

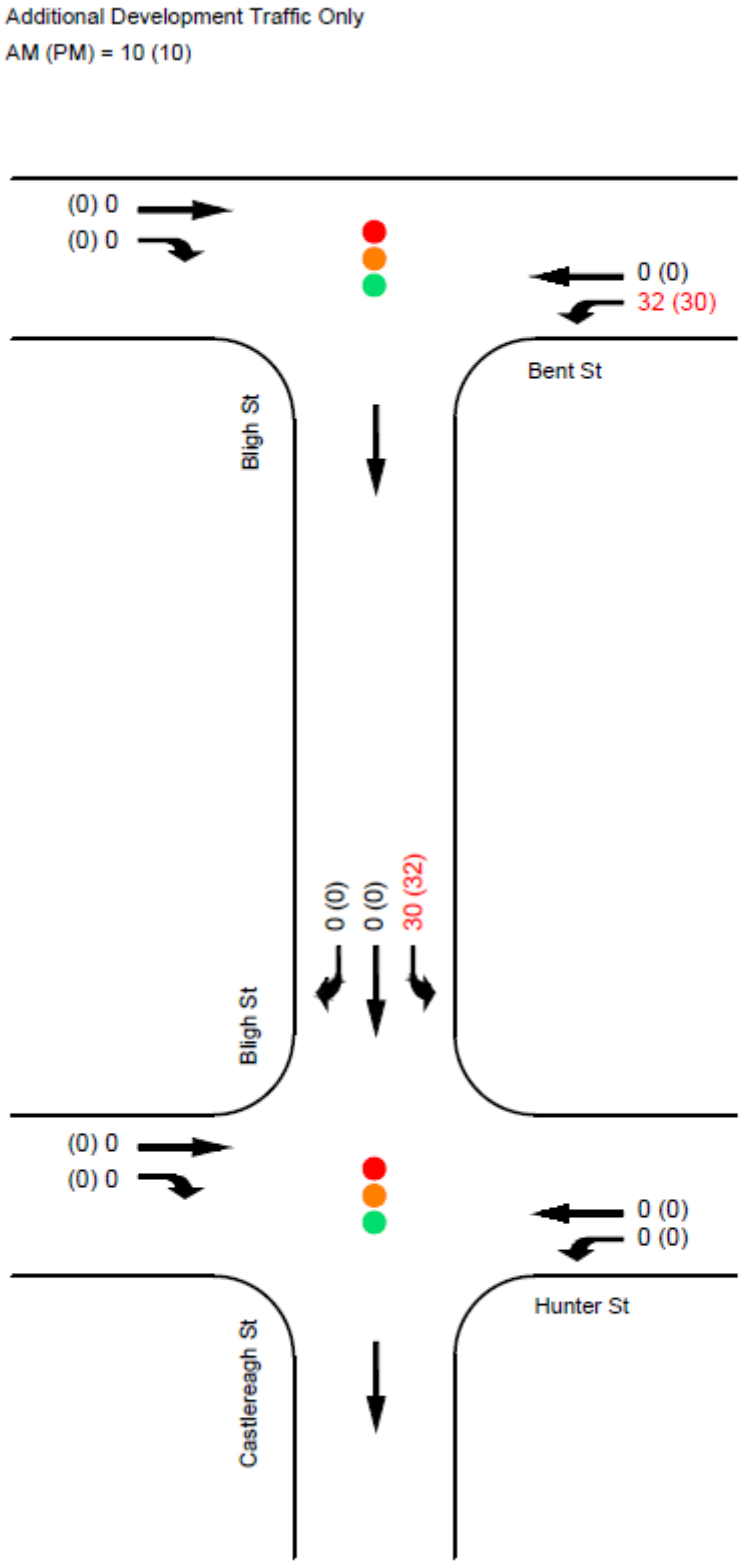
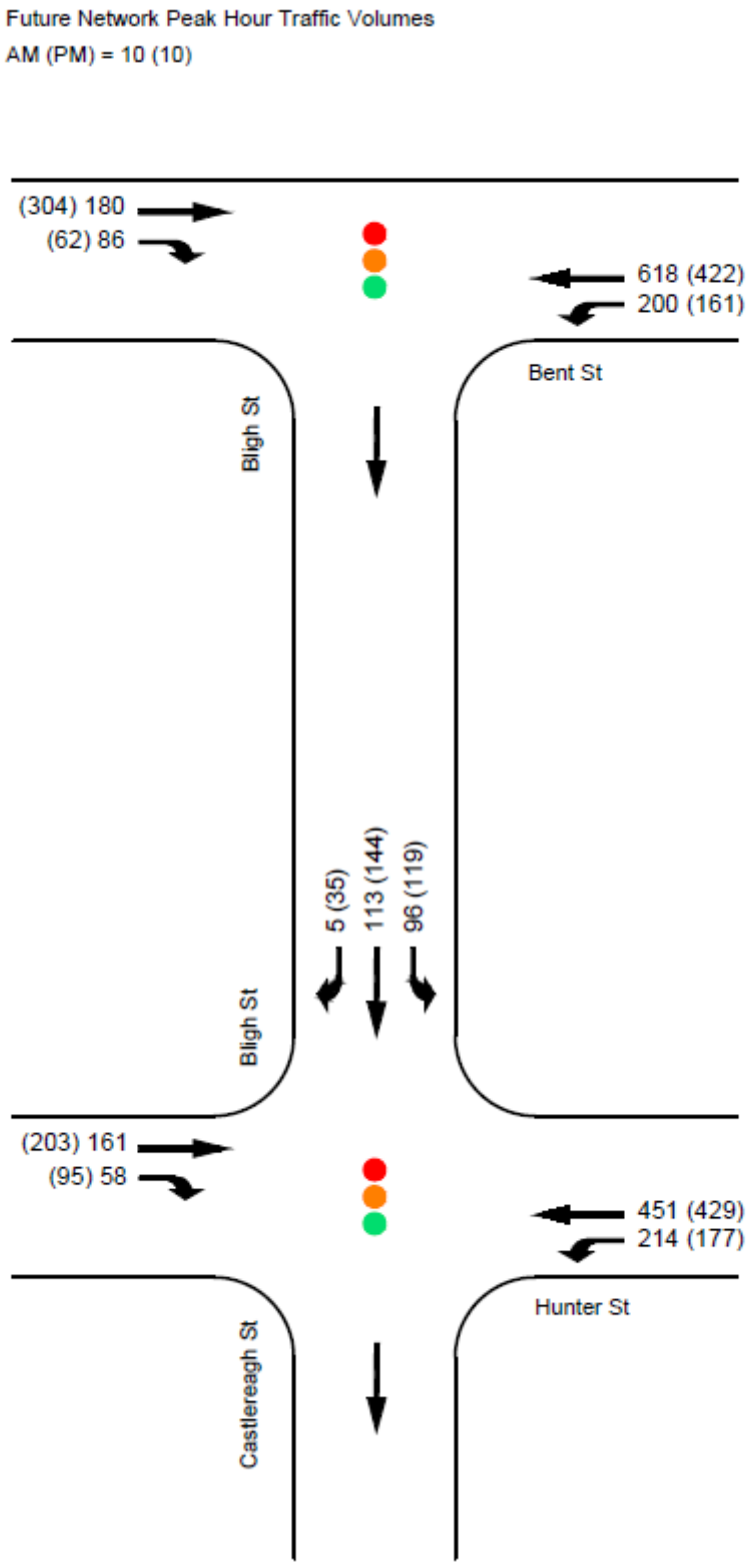


Figure 14: Proposed Development Network Peak Hour Traffic Volumes



5.2 Intersection Capacity Analysis

5.2.1 Overview

Network capacity analysis has been conducted using SIDRA Intersection 7 modelling software on key surrounding intersections to assess the traffic implications arising from the proposal. The following scenarios have been assessed:

- Scenario 1 (S1) – existing base case analysis using surveyed traffic flows in Figure 8
- Scenario 2 (S2) – S1 above plus the additional development traffic associated with the proposal as shown in Figure 14, noting that the existing traffic generation of the site has not been deducted as part of this analysis.

5.2.2 Level of Service Criteria

The intersection capacity analysis has been undertaken using SIDRA Intersection 7 modelling software to ascertain the intersection performance of the key intersections surrounding the site.

RMS uses the performance measure level of service to define how efficient an intersection is operating under given prevailing traffic conditions. Level of service is directly related to the delays experienced by traffic travelling the intersection. Level of service ranges from LoS A to LoS F. LoS A indicates the intersection is operating with spare capacity, while LoS F indicates the intersection is operating above capacity. LoS D is the long term desirable level of service.

Table 3 shows the criteria that SIDRA Intersection adopts in assessing the level of service.

Table 3: RMS Level of Service Criteria

Level of Service (LoS)	Average Delay per vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Sign
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Near capacity	Near capacity, accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode.
F	Greater than 70	Unsatisfactory, requires additional capacity	Unsatisfactory, requires other control mode or major treatment

5.2.3 S1 Existing Base Case (i.e. no development)

The modelling results of the existing base case are presented in Table 4, with full results enclosed in Appendix B.

Table 4: S1 Existing Base Case Analysis Results (i.e. no development)

Intersection	Peak Period	Degree of Saturation (DoS)	Average Delay (sec)	Level of Service (LoS)	95th Percentile Queue Length (m)
Bligh Street-Hunter Street	Morning Peak	0.50	14	A	53
	Evening Peak	0.86	20	B	68
Bligh Street-Bent Street	Morning Peak	0.77	3	A	24
	Evening Peak	0.36	3	A	33

Table 4 indicates that the existing intersections currently operate well with acceptable delays at LoS B or better during both morning and evening peak periods.

5.2.4 S2 Proposed Development Case (i.e. with development)

The modelling results for the proposed development case are presented in Table 5, with full results enclosed in Appendix B. It is noted that the existing traffic volumes associated with the existing site has not been deducted as part of this traffic assessment and thus, the results are considered to represent a more conservative outcome on the surrounding key intersections.

Table 5: S2 Proposed Development Case Analysis Results (i.e. with development)

Intersection	Peak Period	Degree of Saturation (DoS)	Average Delay (sec)	Level of Service (LoS)	95th Percentile Queue Length (m)
Bligh Street-Hunter Street	Morning Peak	0.50	15	B	53
	Evening Peak	0.89	22	B	66
Bligh Street-Bent Street	Morning Peak	0.80	5	A	37
	Evening Peak	0.36	3	A	33

Table 5 indicates that the key surrounding intersections will continue to operate well with acceptable delays at LoS of B or better. It is noted that the Bligh Street-Hunter Street intersection will be tipped to operate from LoS A to B, but this is not expected to result in any adverse traffic impact on the surrounding road network.

Notwithstanding the above, in order to reduce the traffic impact associated with the proposed development, a green travel plan would be implemented to assist manage travel patterns to/from the site, while also minimising car trips (particularly single-occupancy car trips). This green travel plan will generally target staff and visitors to the proposed development to promote the use of more sustainable modes of transport, particularly given the site's proximity to high frequency public transport services.

6 Green Travel Plan

6.1 Overview

The key role of a Green Travel Plan (GTP) is to bring about better transport arrangements to manage travel demands, particularly promoting more sustainable modes of travel, modes which have a low environmental impact such as walking, cycling, public transport and better management of car use.

As part of a GTP, a number of policies and procedures would be put in place at a site to encourage transport choice to and within the site, namely public transport, walking and cycling. These measures would effectively assist in managing the use of private vehicle trips and parking within the area to reduce congestion and cumulative impacts of vehicle emissions upon air quality.

This section provides a framework for the implementation of such a travel plan.

6.2 Transport Plan Framework

The transport sector is a large contributor of Australia's energy-related greenhouse gas emissions through fossil fuels such as petrol, oil, diesel and gas. Whilst transport is a necessary part of life, the effects can be managed through the implementation of a travel plan.

A GTP is a package of coordinated strategies and measures to promote and encourage sustainable travel, such as walking, cycling and public transport etc. Such plans aim to influence the way people move to/from a business, residential complex or any other organisation to deliver better environmental outcomes and provide a range of travel choices, whilst also reducing the reliance on private car usage, particularly single occupancy car trips.

The planning of the new development would need to accommodate innovative ideas to better manage the transport demand of the project. It will be necessary to introduce new measures to ensure that trips generated by the proposed development are not solely private car based, particularly single occupancy trips.

6.3 Potential Measures

The subject site is located within close proximity to high frequency public transport services, with a majority of employees travelling to/from the area via non-car modes. The GTP would put in place measures to encourage a modal shift away from car usage.

Notably, TTPP staff have been involved in a number of GTPs for an array of different land uses, including sites at the Australia Technology Park and Harold Park in Sydney.

At these sites, the following measures are provided:

- Compliance with the stringent parking controls applicable to the site.
- Creation of street networks and associated cycle ways, footpaths and links to encourage cycling and walking.
- Provision of a Transport Access Guide (TAG) which would be given to all residents, staff and visitors
- Provision of public transport noticeboards to make residents, staff and visitors more aware of the alternative transport options available to them. The format would be based upon the Transport Access Guide.
- Provision of yearly membership to a GoOccasional car share which would have dedicated cars and dedicated parking spaces reasonably close to the proposed development.
- The provision of Opal cards with prepaid credits for the initial occupation of the development so that guests, staff and visitors will be encouraged to make public transport their modal choice from the day they occupy the property.
- Provision of bicycle facilities including bicycle parking for guests, staff and visitors, bicycle racks for visitors and shower and change room facilities in commercial tenancies.
- Provision of a half yearly newsletter to guests, staff and visitors to promote local travel initiatives.
- Connect staff working at the site to carpool together by creating a Carpooling club or registry/forum on the company website.
- All properties will be provided with high quality telecommunication points which will provide guests with the opportunity to work in the hotel room and reduce the need to travel.

The proposed development would benefit greatly from the implementation of the above measures to promote the use of more sustainable modes of travel, pertinently public transport, car-share, walking and cycling.

6.4 Monitoring of the GTP

Whilst there is no standard methodology for monitoring a GTP, it is recommended that the GTP be monitored on a regularly basis to ensure that the desired benefits are achieved or otherwise, suitable measures be implemented to reduce the private car usage (particularly single car occupancy trips). At this early stage, it is not possible to

identify what additional modifications may be required to reach the desired outcomes of the GTP as this would be dependent upon the particular circumstances at the time.

Thus, it is recommended that the GTP be monitored on a regularly basis, e.g. yearly, through travel surveys or similar. Travel surveys would show how staff/visitors travel to/from the site and assist in identifying whether the proposed initiatives and measures outlined in the GTP are effective or are required to be replaced or modified to ensure that the best outcomes are achieved. Regular consultation with staff and visitors would also be beneficial to help understand people's reasons for travelling the way they do and help identify any potential barriers to change their travel behaviours.

In order to ensure successful implementation of the GTP, hotel management or a Travel Plan Coordinator (TPC) should be appointed to oversee the measures and resultant impacts of the GTP.

6.5 Summary

Although it is difficult to predict what measures might be achievable until the development is occupied, the above paragraphs provide a framework for the development and implementation of a future travel plan for the site.

On the basis of all such measures being fully incorporated into the development, it is anticipated that the subject site would generate significantly less traffic than other mixed-use development sites in the vicinity. Subsequently, this would have the positive effect in reducing the traffic impact associated with the proposed development on the surrounding road network.

7 Parking Assessment

7.1 Car Parking Requirement

The car parking requirements for the proposed development has been assessed against the following guidelines:

- Sydney Local Environmental Plan 2012 (SLEP 2012)
- Sydney Development Control Plan 2012 (SDCP 2012)

Based on this, the car parking requirement for the proposed development is summarised in Table 6.

Table 6: Car Parking Requirements

Land Use		Size	Maximum Car Parking Rate	Maximum Car Parking Requirement
Office, Business or Retail Premise	Commercial	5,004m² GFA	M = (G x A) ÷ (50 x T)	8 spaces
	Retail / F&B	526m² GFA		
	Function	444m² GFA		
	Gym	1,451m² GFA		
Hotel		407 rooms	(a) 1 space for every 4 bedrooms up to 100 bedrooms, and (b) 1 space for every 5 bedrooms more than 100 bedrooms.	87 car spaces
Total Maximum Car Parking Requirement				**95 car spaces**

** where M = maximum car parking*
G = GFA of proposed office and business / retail premises (7,425m² GFA)
A = Site Area (1,216m²)
T = Total GFA of all buildings on the site (23,798m² GFA)

Table 6 indicates a maximum of 95 car parking spaces could be provided to serve the proposed development. As indicated previously, it is proposed to provide 17 car parking spaces within the basement car park, which is below the maximum permissible car parking provision of the proposed development.

Notwithstanding this, the proposed car park should be managed under a booking system to ensure that appropriate car parking is made available for patrons and guests to the site prior to their arrival (e.g. when a guest books a hotel room). In addition to this, all tenants would be made aware of the limited car parking arrangements and expected to use public transport services to/from the site.

Thus, the proposed car parking provision is considered satisfactory.

7.2 Service Vehicle Loading Bay Requirements

The service vehicle loading bay requirements for the proposed development are set out in the City of Sydney's DCP 2012. The service vehicle loading bay requirements for the proposed development is summarised in Table 7.

Table 7: Service Vehicle Loading Bay Requirements

Land Use	Size	Minimum Service Vehicle Parking Rate	Minimum Service Vehicle Parking Requirement
Commercial	5,004m² GFA	1 space per 3,300m² GFA, or part thereof, for the first 50,000 m²	2 loading spaces
Function	444m² GFA		
Gym	1,451m² GFA		
Retail / F&B	526m² GFA	1 space per 350m² GFA, or part thereof, up to 2000 m²; then 1 space per 800m² GFA thereafter	2 loading spaces
Hotel F&B	642m² GFA	(i) 1 space per 50 hotel bedrooms, or part thereof, up to 100 bedrooms; then (ii) 1 space per 100 hotel bedrooms; plus (iii) 1 space per 400sqm of reception, lounge, bar and restaurant area GFA, or part thereof, for the first 2,000sqm; then (iv) 1 space per 8000sqm of reception, lounge, bar and restaurant area GFA thereafter	2 loading spaces
Hotel	407 rooms		6 loading spaces
Total			**12 loading spaces**

Table 7 indicates that the proposed development would require at least 12 loading spaces to serve all the proposed uses of the site independently.

However, previous empirical data has been obtained to determine the loading demand at the following three existing developments within the Sydney CBD:

- CityGroup Centre
- 1 Bligh Street
- QVB

A summary of the existing loading dock occupancy and demand of the above existing developments is presented in Figure 15.

Figure 15: Previous Empirical Data – CBD Loading Dock Occupancy Survey Results

Building	Net Floor Area (m²)	Peak Loading Bay Occupancy					Occupancy Rate
		Courier Bays	SRV Bays	MRV Bays	HRV Bays	Total	
Commercial							
- 1 Bligh Street	42,800m²	9	0	0	0	9	1 per 4,800m²
- CitiGroup Centre	61,000m²	23	2	2	1	27	1 per 2,300m²
Retail							
- QVB	13,700m²	10	2	1	0	13	1 per 1,000m²
- CitiGroup Centre	13,000m²	6	0	2	0	8	1 per 1,600m²

Source: GTA Consultants, 1 Carrington Street, Sydney – Traffic Impact Assessment Report (dated 30/04/14)

Based on the above, the following average loading rates were recorded for the following uses:

- Commercial: 1 loading bay per 5,500m² NLA
- Retail: 1 loading bay per 1,000m² NLA

Taking the above empirical rates into consideration, the following service vehicle parking provision could be satisfactory:

- commercial use (including gym and function uses) – 2 loading spaces
- retail use – 1 loading space
- hotel use – 8 loading spaces (as per DCP rates)

Due to site constraints, it is proposed to provide two loading spaces within the basement car park to be shared amongst all tenancies to facilitate vehicles up to and including a 6.4m small rigid vehicle. However, waste collection activities are proposed to be carried out by a private waste contractor using a 7.56m refuge truck. Appropriate clearances and ramp grades have been provided to facilitate appropriate vehicle accessibility to/from the loading dock.

In addition to this, it should be noted that all loading and unloading activities will primarily be undertaken on-site, rather than on-street, which is considered a beneficial outcome as current loading activates associated with the existing site are currently carried out on-street. Whilst the proposed provision of two loading spaces is less that the specified loading requirements as set out in Council's DCP, the proposed loading provision is considered adequate to serve the proposed development and will be managed under a loading dock management plan.

The loading dock management plan would be implemented to ensure that all deliveries to the site are appropriate managed throughout the day. The loading dock management plan will also include measures that specify that deliveries to the site are to be undertaken only during an allocated time slot and booked in advance with the loading dock manager. All tenants will be made aware and agree to the measures

and conditions noted in the loading dock management plan in relation to the use of the loading dock.

Thus, the proposed loading provision is considered satisfactory for the anticipated use and size of the development.

7.3 Bus and Drop-off and Pick-Up Activities

All bus, drop-off and/or pick-up related activities associated with the proposed development will be carried out on-street using the existing drop off area on Bligh Street, just north of the site. This existing drop off area accommodates some 3-4 vehicles (or 2 buses) and is restricted to "No Parking, Coaches Excepted 15-minute limit". On-site observations indicate that this drop off area is generally in low demand, with some vacancies available throughout the day.

As indicated previously, the proposed development could generate up to 45 two-way drop off/pick up related trips during the peak hour, which equates to approximately one vehicle movement every 1-2 minutes, which is considered negligible. On this basis, the proposed development traffic associated with drop off /pick up related activities, including bus/coach movements, could be appropriately accommodated on-street without adversely impacting on existing operations.

7.4 Motorcycle Parking Requirement

In accordance with the City of Sydney's DCP 2012, motorcycle parking spaces are to be provided at a rate of 1 motorcycle parking space for every 12 car parking spaces. Based on this, 2 motorcycle parking spaces will need to be provided to satisfy the City of Sydney's DCP motorcycle parking requirements. On this basis, it is proposed to provide appropriate motorcycle parking provision for the development to meet the anticipated use of the site.

7.5 Bicycle Parking Requirement

The bicycle parking requirements for the proposed development is summarised in Table 8.

Table 8: On-site bicycle parking requirement

Land Use	Size	Minimum Bicycle Parking Rate		Minimum Bicycle Parking Requirement	
		Residents / Employees	Customers / Visitors	Residents / Employees	Customers / Visitors
Commercial	5,004m² GFA	1 per 150m² GFA	1 per 400m² GFA	46 spaces	18 spaces
Function	444m² GFA				
Gym	1,451m2 GFA				
Retail / F&B	526m² GFA	1 per 250m²	2 plus 1 per 100m² over 100m²	3 spaces	7 spaces
Hotel F&B	642m² GFA	1 per 4 staff	1 per 20 rooms	25 spaces [1]	21 spaces
Hotel	407 rooms				
Total				**74 spaces**	**46 spaces**

[1] At this stage, it has been assumed that there are approx. 100 staff on-site for the Hotel use for the purpose of estimating bicycle parking requirements.

It is proposed to provide a secure area within the building with appropriate end of trip facilities to serve the anticipated use of the proposed development. All proposed bicycle parking spaces are proposed to be generally designed in accordance with AS2890.3:2015 to ensure suitable bicycle parking provisions can be accommodated within the site.

7.6 Car Park Layout

7.6.1 Design of Parking Modules

- The car parking spaces are to be designed as a Class 2 parking facility. Class 2 car parking spaces are required to have the dimensions of 2.5m wide by 5.4m long with an aisle width of 5.8m.
- The disabled parking spaces and associated shared area are to be designed in accordance with AS2890.6. These parking spaces are also required to have the dimensions of 2.4m wide by 5.4m long, with the associated shared area with the same dimensions.

7.6.2 Vehicle Access Ramps

- The internal ramps associated with the basement car park shall be designed with a maximum grade of 20% (1 in 5) to the public accessibility car park with the appropriate grade transitions in accordance with AS2890.1.
- The vehicle access off the internal road shall be designed to service vehicles up to and including a 6.4m small rigid vehicle (including the proposed 7.56 refuge truck) and facilitate one-lane two-way access arrangements.

7.6.3 Headroom Clearance

- A minimum vertical clearance of 2.2m is required within the basement car park. The accessible car parking spaces are required to have a minimum vertical clearance of 2.5m above these spaces in accordance with AS2890.6.
- Within the loading dock, a minimum vertical clearance of 3.5m is required to facilitate a 6.4m small rigid vehicle as per AS2890.2. In addition to this, a minimum vertical clearance of 2.6m is satisfactory to facilitate the proposed 7.56m refuge truck.

7.6.4 Other Considerations

- All columns, walls and obstructions are to be located outside of the parking space design envelope in accordance with AS2890.1.
- Appropriate sight visibility splays are to be provided on either side of the access driveway to ensure adequate visibility between vehicles leaving the car park and pedestrians on the frontage road footpath.

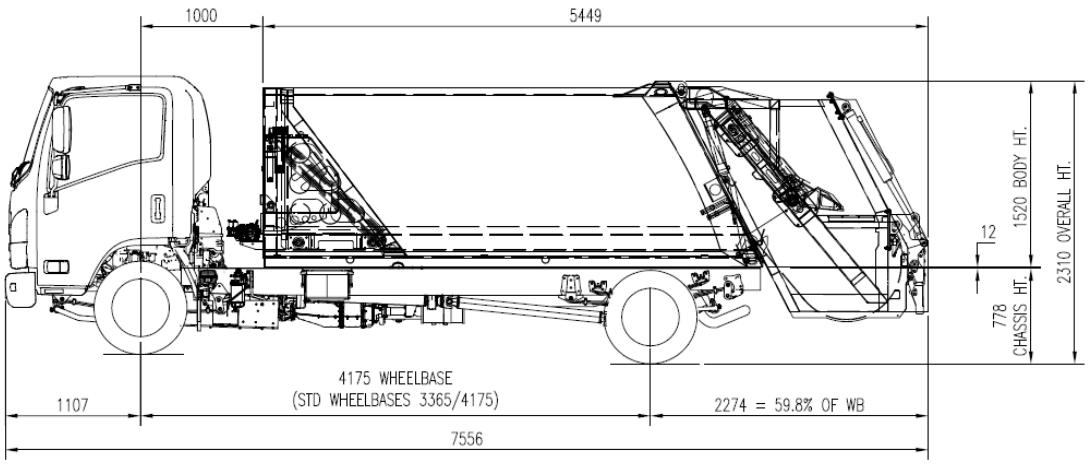
In summary, the car park and associated elements are proposed to comply with design requirements set out in the Australian Standard, namely AS2890.1:2004 and AS2890.6:2009. It is however, envisaged that a condition of consent would be imposed requiring compliance with these standards and as such, any minor amendments can be dealt with prior to the issue of a Construction Certificate.

7.7 Swept Path Analysis

Swept path analysis has been conducted using a 6.4m small rigid vehicle and demonstrates appropriate vehicle accessibility to/from the proposed loading bays. It is noted that a minimum vertical clearance of 3.5m is required for such 6.4m small rigid vehicles in accordance with AS2890.2:2002.

In addition to this, swept path analysis has been conducted using a proposed 7.56m refuse truck, which indicates appropriate vehicle accessibility to the dedicated waste loading bay. In addition to this, it is noted that a minimum vertical clearance of 2.6m is considered satisfactory. The vehicle specifications of the proposed 7.56m refuge truck is shown in Figure 16.

Figure 16: 7.56m Refuge Truck – Vehicle Specifications



Source: Client (Ref: RL SERIES II REAR LOADER_ISUZU NPR75-190 LWB)

Further to this, it is noted that all service vehicles will enter and exit the site in a forward direction off the proposed driveway on Bligh Street.

The swept path analysis is provided in Appendix C.

8 Conclusion

This report examines the traffic and parking implications of the proposed development at 4-6 Bligh Street. The key findings of the report are presented below.

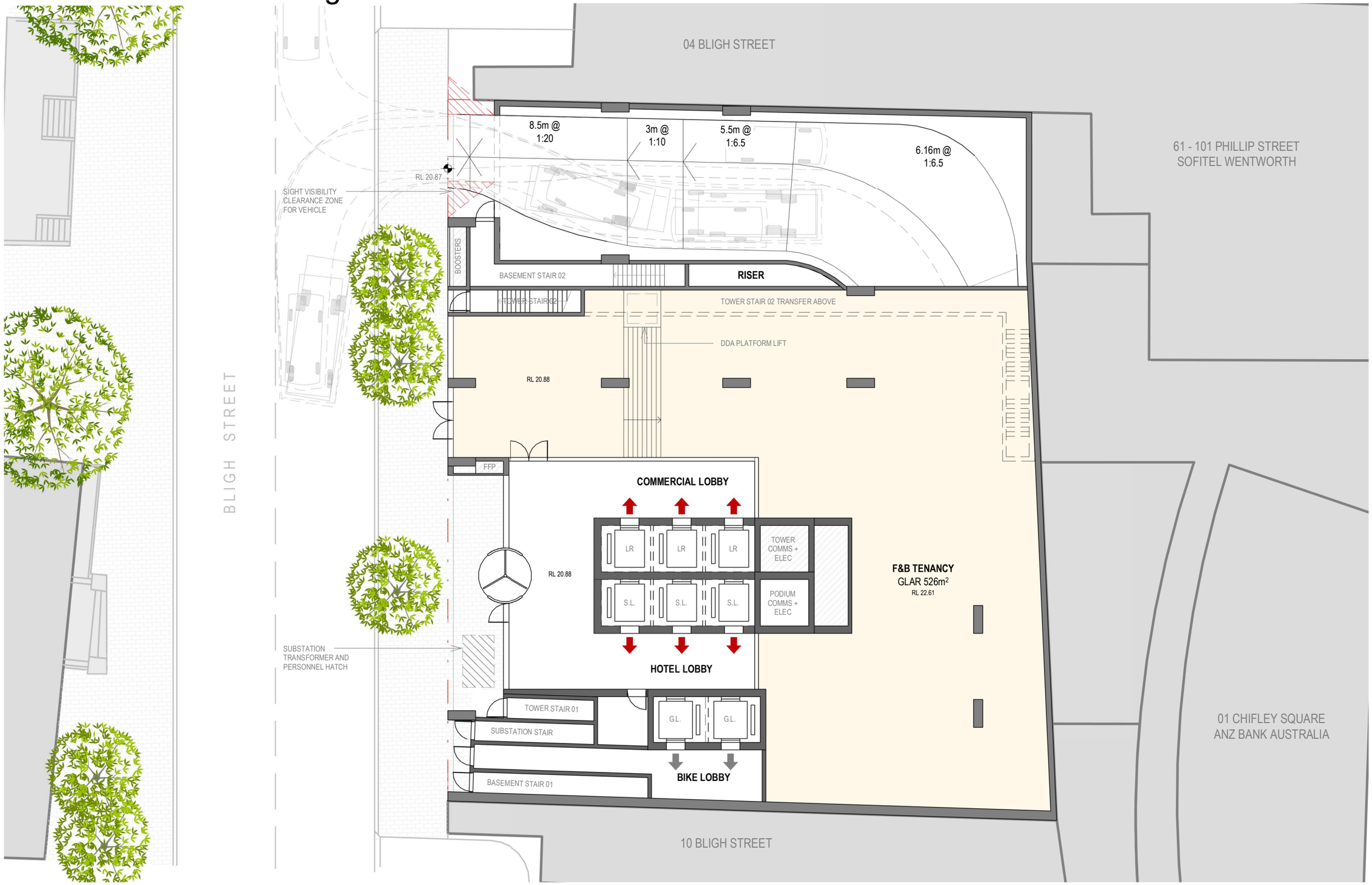
- The planning proposal seeks to rezone the site rezone land on 4-6 Bligh Street, Sydney, from 8:1 plus bonuses to a maximum FSR of 22:1 including bonuses.
- At this stage, the proposed mixed-use development is envisaged to comprise of 5,004m^2 GFA of commercial, 407 hotel rooms with associated F&B space, 526m^2 GFA of ground floor retail / F&B, 1,451m^2 GFA of gym and 444m^2 of upper ground floor function room uses.
- It is proposed to provide 17 car parking spaces and two loading spaces within the basement car park.
- The proposed car parking provision is considered satisfactory to serve the proposed development, with appropriate allocation for service and loading facilities.
- The proposed loading provision is considered satisfactory to serve the anticipated use of the site, noting that all loading and unloading activities will be managed under a loading dock management plan to ensure appropriate and efficient operation of the loading dock.
- The proposed development is expected to generate circa 62 two-way vehicle trips in each peak hour (including pick up and drop offs).
- Traffic modelling indicates that the surrounding key intersections will continue to operate well with acceptable delays at LoS B or better in the future.
- A green travel plan should be implemented as part of the proposed development to facilitate a modal shift towards more sustainable modes of transport (e.g. public transport and/or car share) as opposed to single-occupancy car trips.
- The implementation of the GTP is expected to reduce the traffic impact associated with the proposed development.

Overall, it is concluded that the traffic and parking aspects of the proposed development would be satisfactory. The proposed development is not likely expected to generate any adverse traffic impact on the surrounding road network, nor any safety or operational issues.

Appendix A

Architectural Layout Plans

GA - Ground Level Plan - Bligh Street



4-6 Bligh Street, Sydney

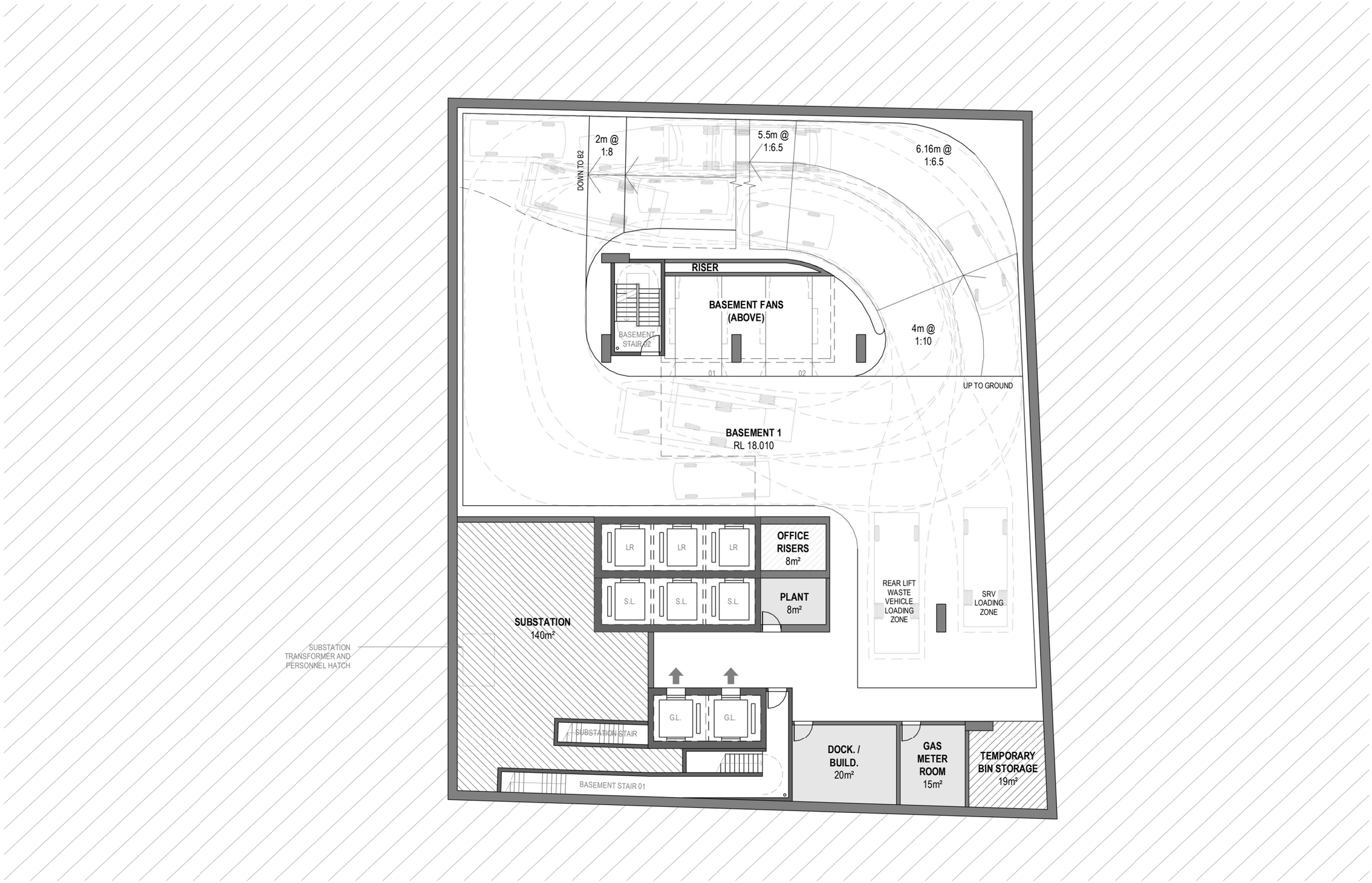
Drawing:	**Ground Level Plan**
Drawing no:	RD1005
Issue:	7
Scale @ A3:	1 : 200
Date	24/07/17

North

Architectus Sydney
Level 18 MLC Centre
19 Martin Place
Sydney NSW 2000
sydney@architectus.com.au

architectus™

GA - Basement Level 01 Plan



4-6 Bligh Street, Sydney

Drawing: **Basement Level 01 Plan**
Drawing no: RD1004
Issue: 6
Scale @ A3: 1 : 200
Date 24/07/17

North

Architectus Sydney
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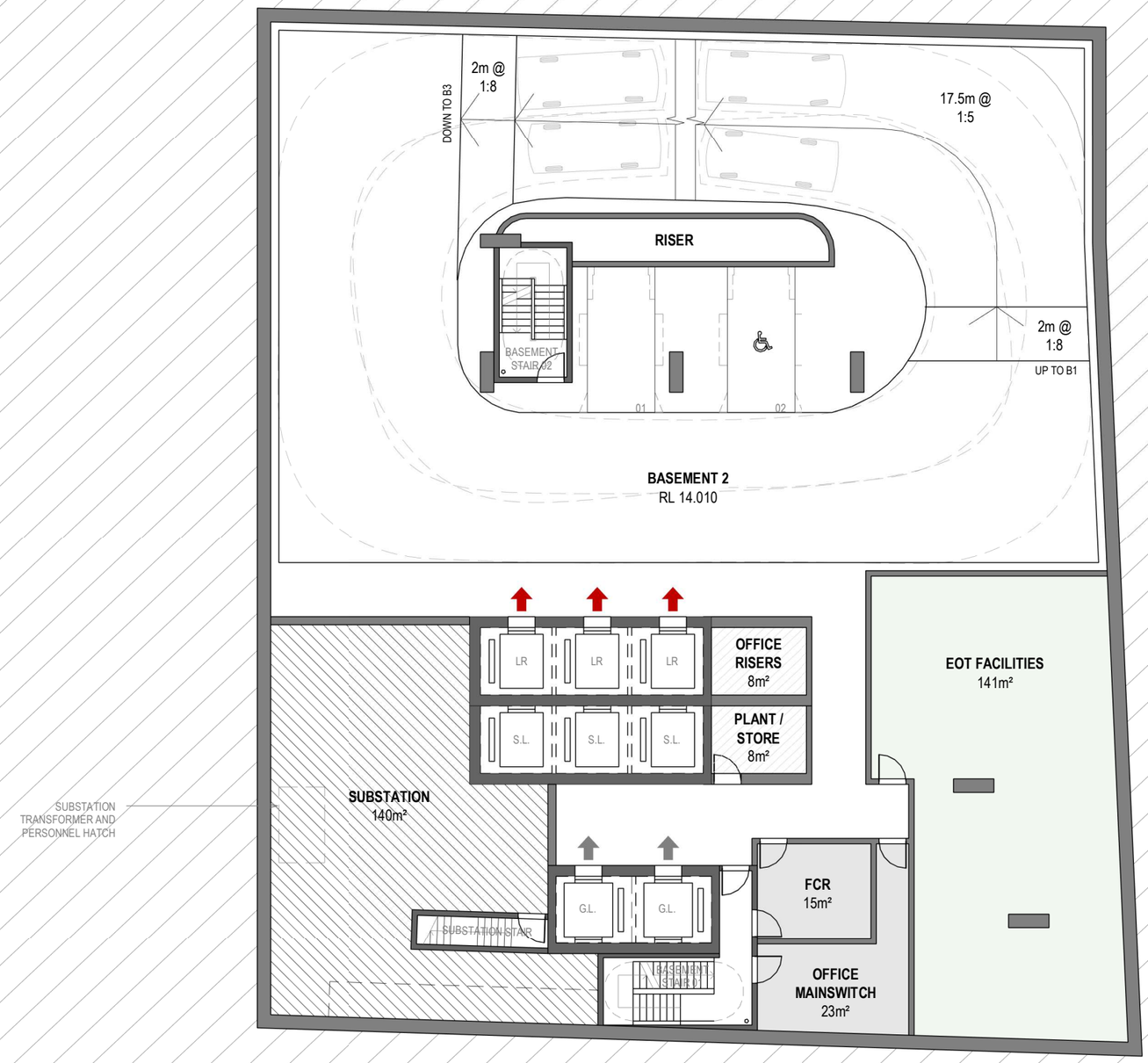
GA - Basement Level 02 Plan



4-6 Bligh Street, Sydney

Drawing: **Basement Level 02 Plan**
Drawing no: RD1003
Issue: 6
Scale @ A3: 1 : 200
Date 24/07/17

North

Architectus Sydney
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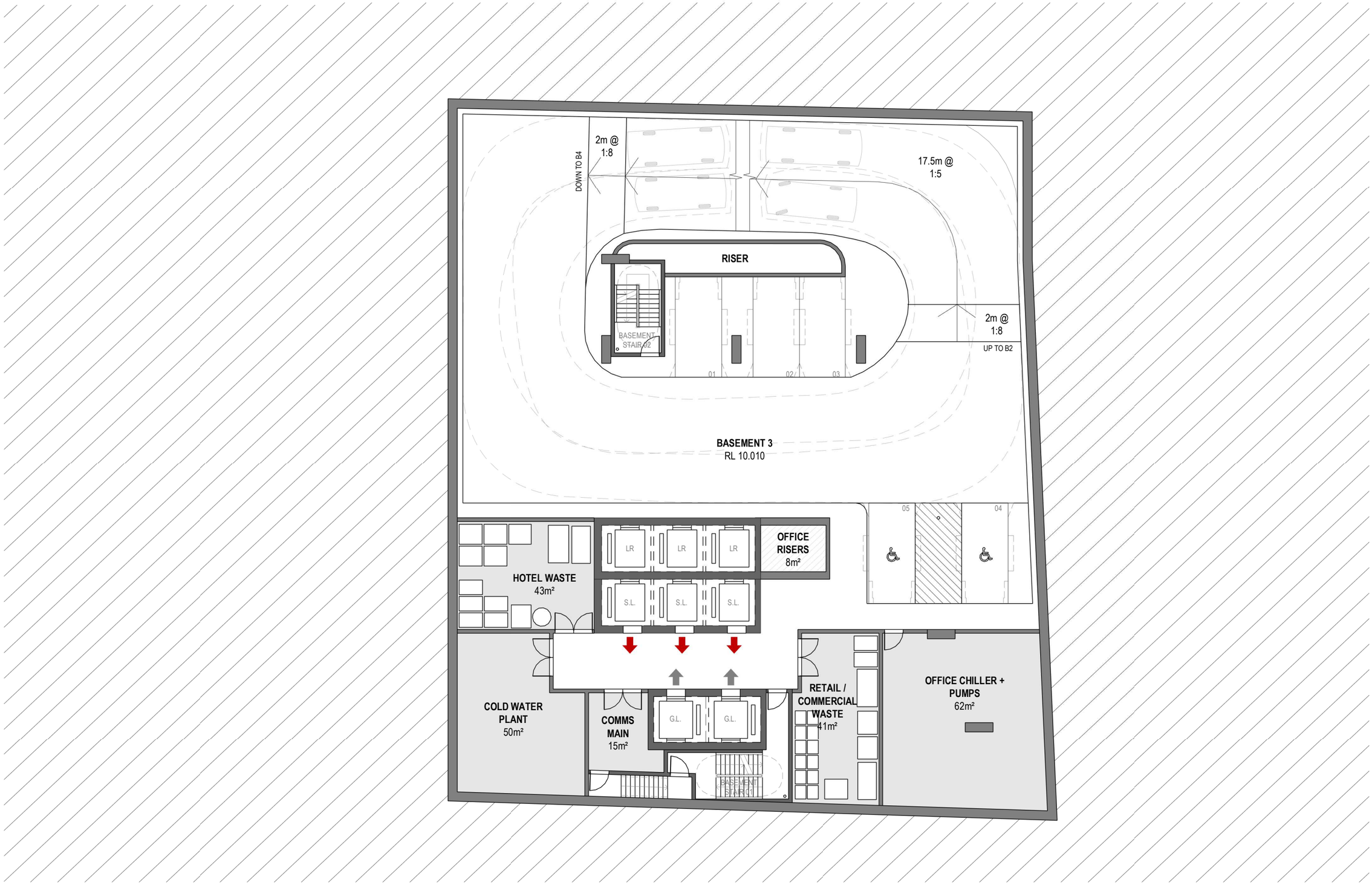
GA - Basement Level 03 Plan



4-6 Bligh Street, Sydney

Drawing:	**Basement Level 03 Plan**
Drawing no:	RD1002
Issue:	6
Scale @ A3:	1 : 200
Date	24/07/17

North

Architectus Sydney
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19 Martin Place
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GA - Basement Level 04 Plan

4-6 Bligh Street, Sydney

Drawing:	**Basement Level 04 Plan**
Drawing no:	RD1001
Issue:	6
Scale @ A3:	1 : 200
Date	24/07/17

North

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Appendix B

SIDRA Intersection Results

MOVEMENT SUMMARY

Site: 101 [Bligh St-Bent St (Ex AM)]

Network: N101 [Bligh St Network (Ex-AM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival 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	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Bent St-E													
4	L2	177	10.7	177	10.7	0.155	6.4	LOS A	2.4	18.5	0.24	0.50	35.6
5	T1	651	5.5	651	5.5	0.773	1.6	LOS A	3.2	23.5	0.10	0.11	39.2
Approach		827	6.6	827	6.6	0.773	2.7	LOS A	3.2	23.5	0.13	0.19	38.7
West: Bent St- W													
11	T1	189	5.6	189	5.6	0.130	3.3	LOS A	2.5	18.3	0.27	0.23	38.6
12	R2	91	10.5	91	10.5	0.199	8.8	LOS A	1.6	11.9	0.34	0.61	33.6
Approach		280	7.1	280	7.1	0.199	5.1	LOS A	2.5	18.3	0.29	0.35	37.5
All Vehicles		1107	6.7	1107	6.7	0.773	3.3	LOS A	3.2	23.5	0.17	0.23	38.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		158	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Bent St (Ex PM)]

Network: N101 [Bligh St Network (Ex-PM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival 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	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Bent St-E													
4	L2	138	22.9	138	22.9	0.112	6.8	LOS A	1.8	15.1	0.26	0.55	35.0
5	T1	444	11.8	444	11.8	0.318	0.4	LOS A	0.7	5.2	0.03	0.03	39.8
Approach		582	14.5	582	14.5	0.318	1.9	LOS A	1.8	15.1	0.09	0.15	39.1
West: Bent St- W													
11	T1	320	1.3	320	1.3	0.356	3.8	LOS A	4.7	33.2	0.31	0.32	38.2
12	R2	65	3.2	65	3.2	0.356	7.7	LOS A	4.7	33.2	0.34	0.38	36.1
Approach		385	1.6	385	1.6	0.356	4.5	LOS A	4.7	33.2	0.31	0.33	38.0
All Vehicles		967	9.4	967	9.4	0.356	2.9	LOS A	4.7	33.2	0.18	0.22	38.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		158	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Bent St (PD AM)]

Network: N101 [Bligh St Network (PD-AM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total	HV	Arrival 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	%	veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Bent St-E													
4	L2	211	9.0	211	9.0	0.161	6.8	LOS A	2.9	21.6	0.27	0.55	35.0
5	T1	651	5.5	651	5.5	0.804	3.8	LOS A	5.0	36.5	0.10	0.13	38.4
Approach		861	6.4	861	6.4	0.804	4.5	LOS A	5.0	36.5	0.14	0.23	37.9
West: Bent St- W													
11	T1	189	5.6	189	5.6	0.130	3.3	LOS A	2.5	18.3	0.27	0.23	38.6
12	R2	91	10.5	91	10.5	0.209	9.2	LOS A	1.6	12.5	0.35	0.61	33.4
Approach		280	7.1	280	7.1	0.209	5.2	LOS A	2.5	18.3	0.30	0.35	37.5
All Vehicles		1141	6.5	1141	6.5	0.804	4.7	LOS A	5.0	36.5	0.18	0.26	37.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		158	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Bent St (PD PM)]

Network: N101 [Bligh St Network (PD-PM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Bent St-E													
4	L2	169	18.6	169	18.6	0.134	6.8	LOS A	2.3	18.3	0.27	0.56	34.9
5	T1	444	11.8	444	11.8	0.318	0.4	LOS A	0.7	5.2	0.03	0.03	39.8
Approach		614	13.7	614	13.7	0.318	2.2	LOS A	2.3	18.3	0.10	0.17	38.9
West: Bent St- W													
11	T1	320	1.3	320	1.3	0.360	3.9	LOS A	4.7	33.2	0.31	0.32	38.2
12	R2	65	3.2	65	3.2	0.360	7.7	LOS A	4.7	33.2	0.34	0.38	36.1
Approach		385	1.6	385	1.6	0.360	4.5	LOS A	4.7	33.2	0.31	0.33	37.9
All Vehicles		999	9.1	999	9.1	0.360	3.1	LOS A	4.7	33.2	0.18	0.23	38.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		158	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Hunter St (Ex AM)]

Network: N101 [Bligh St Network (Ex-AM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Hunter St- E													
4	L2	225	15.4	225	15.4	0.260	19.2	LOS B	6.7	52.7	0.59	0.69	33.2
5	T1	475	4.7	475	4.7	0.503	2.7	LOS A	3.6	25.9	0.15	0.14	38.8
Approach		700	8.1	700	8.1	0.503	8.0	LOS A	6.7	52.7	0.29	0.31	36.8
North: Bligh St- N													
7	L2	69	10.6	69	10.6	0.260	48.6	LOS D	3.4	25.7	0.92	0.75	22.4
8	T1	119	18.6	119	18.6	0.189	40.7	LOS C	3.0	23.4	0.92	0.71	24.1
9	R2	5	0.0	5	0.0	0.189	44.2	LOS D	3.0	23.4	0.92	0.71	24.0
Approach		194	15.2	194	15.2	0.260	43.6	LOS D	3.4	25.7	0.92	0.72	23.5
West: Hunter St-W													
11	T1	169	7.5	169	7.5	0.197	7.3	LOS A	3.0	24.7	0.40	0.37	36.8
12	R2	61	31.0	61	31.0	0.197	13.8	LOS A	3.0	24.7	0.51	0.53	35.3
Approach		231	13.7	231	13.7	0.197	9.0	LOS A	3.0	24.7	0.43	0.42	36.4
All Vehicles		1124	10.5	1124	10.5	0.503	14.4	LOS A	6.7	52.7	0.43	0.41	34.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Hunter St (Ex PM)]

Network: N101 [Bligh St Network (Ex-PM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Hunter St- E													
4	L2	186	18.6	186	18.6	0.232	20.6	LOS B	5.7	46.1	0.61	0.69	32.7
5	T1	452	0.7	452	0.7	0.441	4.4	LOS A	4.7	33.3	0.21	0.19	38.2
Approach		638	5.9	638	5.9	0.441	9.1	LOS A	5.7	46.1	0.33	0.33	36.4
North: Bligh St- N													
7	L2	92	1.1	92	1.1	0.421	53.6	LOS D	4.9	34.5	1.00	0.78	21.5
8	T1	152	22.2	152	22.2	0.858	58.2	LOS E	8.1	67.9	1.00	1.00	20.5
9	R2	37	0.0	37	0.0	0.343	53.1	LOS D	2.9	21.7	0.99	0.77	21.6
Approach		280	12.4	280	12.4	0.858	56.0	LOS D	8.1	67.9	1.00	0.90	21.0
West: Hunter St-W													
11	T1	214	16.3	214	16.3	0.411	6.0	LOS A	4.4	35.0	0.41	0.36	37.5
12	R2	100	15.8	100	15.8	0.418	16.3	LOS B	3.1	24.7	0.63	0.72	33.8
Approach		314	16.1	314	16.1	0.418	9.3	LOS A	4.4	35.0	0.48	0.47	36.3
All Vehicles		1232	10.0	1232	10.0	0.858	19.8	LOS B	8.1	67.9	0.52	0.50	32.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.1 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Hunter St (PD AM)]

Network: N101 [Bligh St Network (PD-AM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	Demand Flows HV %	Arrival Flows Total veh/h	Arrival Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Hunter St- E													
4	L2	225	15.4	225	15.4	0.260	19.2	LOS B	6.7	52.7	0.59	0.69	33.2
5	T1	475	4.7	475	4.7	0.503	2.7	LOS A	3.6	25.9	0.15	0.14	38.8
Approach		700	8.1	700	8.1	0.503	8.0	LOS A	6.7	52.7	0.29	0.31	36.8
North: Bligh St- N													
7	L2	101	7.3	101	7.3	0.372	49.5	LOS D	4.9	36.3	0.92	0.76	22.3
8	T1	119	18.6	119	18.6	0.189	40.7	LOS C	2.9	22.6	0.89	0.69	24.1
9	R2	5	0.0	5	0.0	0.189	44.2	LOS D	2.9	22.6	0.89	0.69	24.0
Approach		225	13.1	225	13.1	0.372	44.7	LOS D	4.9	36.3	0.90	0.72	23.2
West: Hunter St-W													
11	T1	169	7.5	169	7.5	0.197	7.3	LOS A	3.0	24.7	0.40	0.37	36.8
12	R2	61	31.0	61	31.0	0.197	13.8	LOS A	3.0	24.7	0.51	0.53	35.3
Approach		231	13.7	231	13.7	0.197	9.0	LOS A	3.0	24.7	0.43	0.42	36.4
All Vehicles		1156	10.2	1156	10.2	0.503	15.4	LOS B	6.7	52.7	0.44	0.41	33.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [Bligh St-Hunter St (PD PM)]

Network: N101 [Bligh St Network (PD-PM)]

New Site
Signals - Fixed Time Coordinated Cycle Time = 110 seconds (User-Given Phase Times)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Hunter St- E													
4	L2	186	18.6	186	18.6	0.232	20.6	LOS B	5.7	46.1	0.61	0.69	32.7
5	T1	452	0.7	452	0.7	0.441	4.4	LOS A	4.7	33.3	0.21	0.19	38.2
Approach		638	5.9	638	5.9	0.441	9.1	LOS A	5.7	46.1	0.33	0.33	36.4
North: Bligh St- N													
7	L2	125	0.8	125	0.8	0.807	58.6	LOS E	7.1	50.1	1.00	0.92	20.6
8	T1	152	22.2	152	22.2	0.890	61.3	LOS E	7.9	66.4	1.00	0.98	20.0
9	R2	37	0.0	37	0.0	0.356	53.2	LOS D	3.1	22.8	0.99	0.77	21.6
Approach		314	11.1	314	11.1	0.890	59.3	LOS E	7.9	66.4	1.00	0.93	20.4
West: Hunter St-W													
11	T1	214	16.3	214	16.3	0.411	6.0	LOS A	4.4	35.0	0.41	0.36	37.5
12	R2	100	15.8	100	15.8	0.418	16.3	LOS B	3.1	24.7	0.63	0.72	33.8
Approach		314	16.1	314	16.1	0.418	9.3	LOS A	4.4	35.0	0.48	0.47	36.3
All Vehicles		1265	9.7	1265	9.7	0.890	21.6	LOS B	7.9	66.4	0.53	0.52	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Largest change in Average Back of Queue or Degree of Saturation for any lane during the last three iterations: 0.0 %
Number of Iterations: 5 (maximum specified: 10)

Movement Performance - Pedestrians

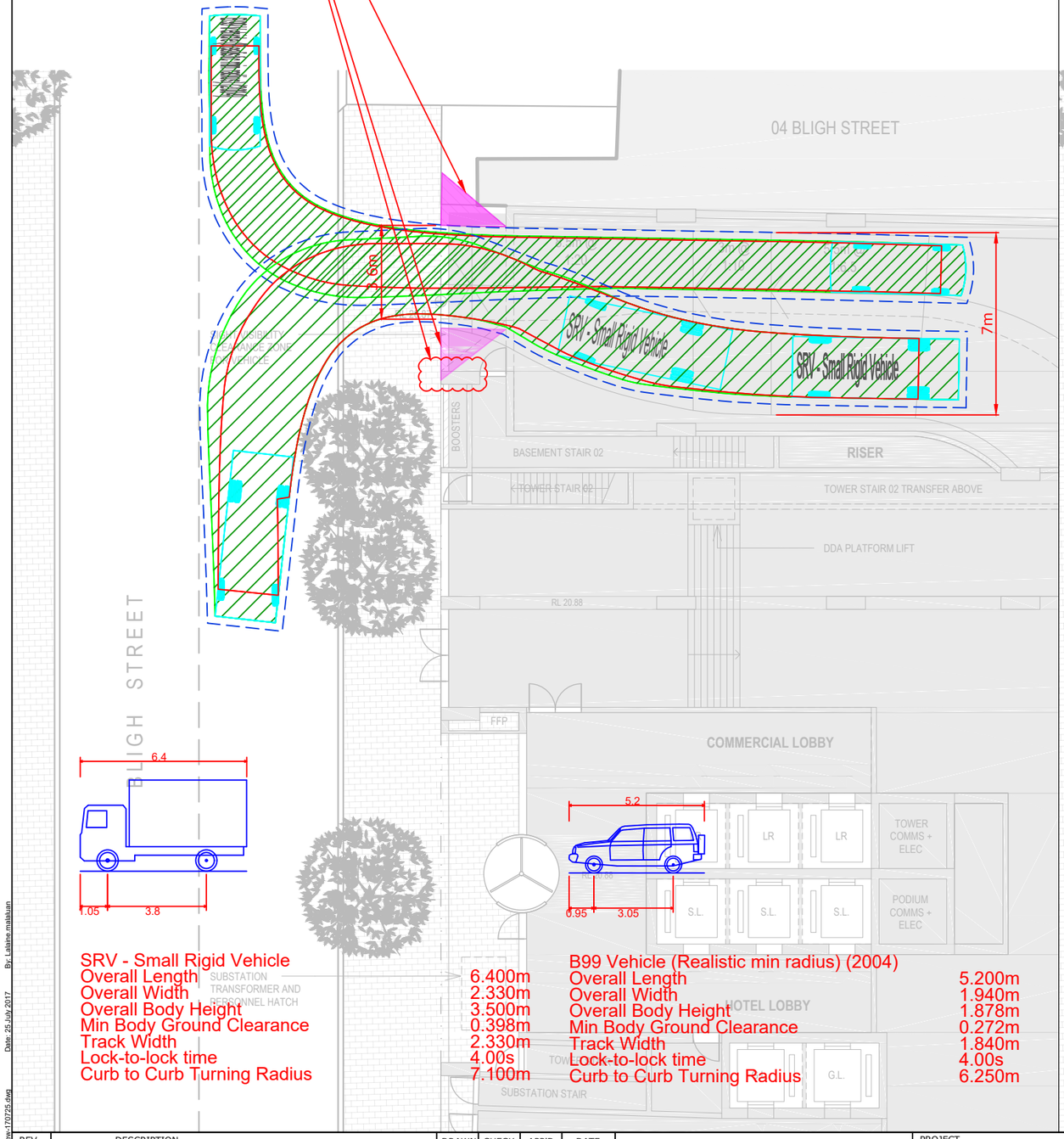
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped
P1	South Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P2	East Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P3	North Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
P4	West Full Crossing	53	49.3	LOS E	0.2	0.2	0.95	0.95
All Pedestrians		211	49.3	LOS E			0.95	0.95

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

Appendix C

Swept Path Analysis

ENSURE THESE AREAS ARE KEPT CLEAR OF OBSTRUCTIONS ON BOTH SIDES TO PROVIDE ADEQUATE SIGHT VISIBILITY AS PER AS2890.1 FIGURE 3.3 (i.e. 2.0m WIDE BY 2.5 DEEP SIGHT TRIANGLE)



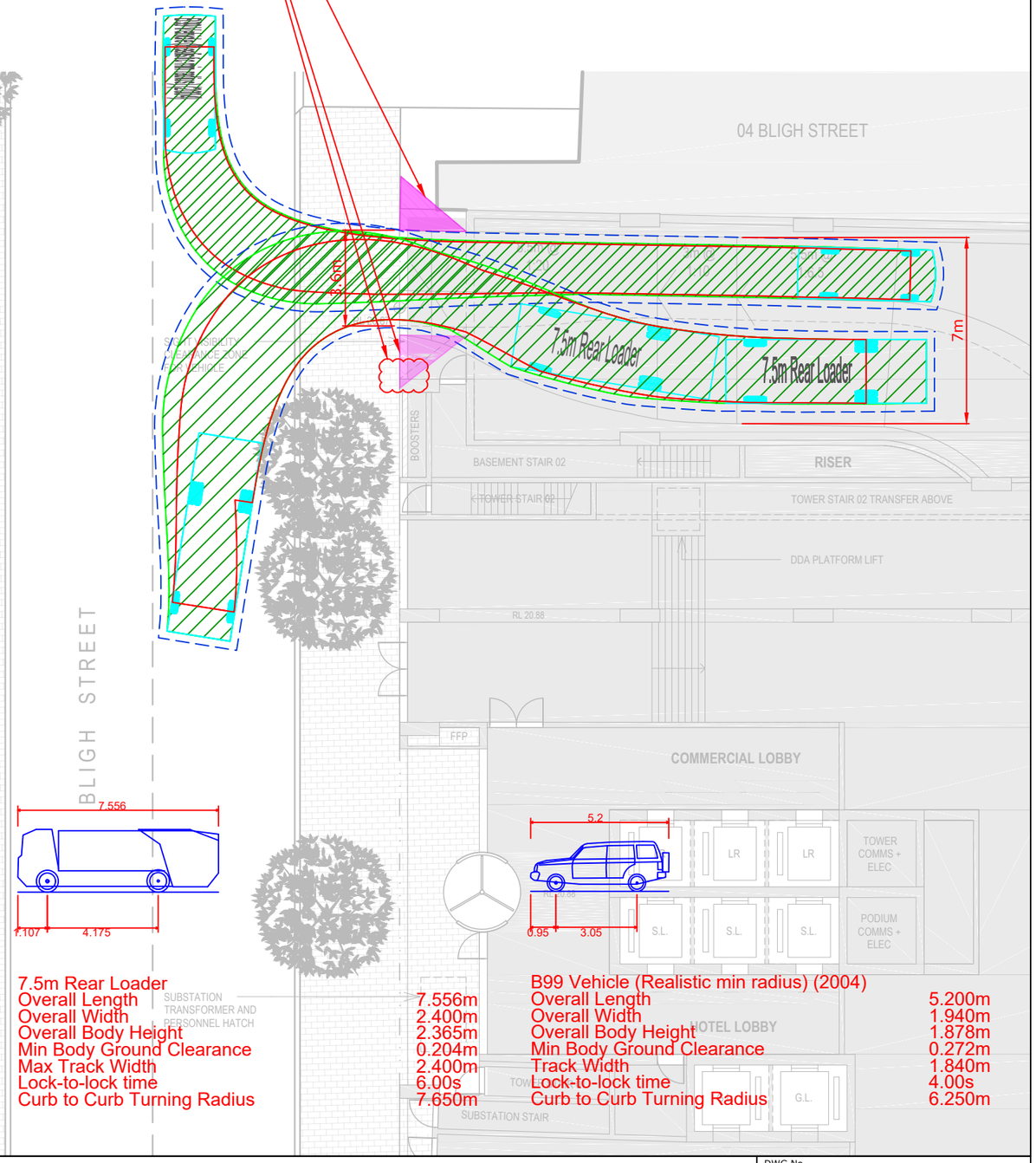
SRV - Small Rigid Vehicle

Overall Length	6.400m
Overall Width	2.330m
Overall Body Height	3.500m
Min Body Ground Clearance	0.398m
Track Width	2.330m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.100m

B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

ENSURE THESE AREAS ARE KEPT CLEAR OF OBSTRUCTIONS ON BOTH SIDES TO PROVIDE ADEQUATE SIGHT VISIBILITY AS PER AS2890.1 FIGURE 3.3 (i.e. 2.0m WIDE BY 2.5 DEEP SIGHT TRIANGLE)



7.5m Rear Loader

Overall Length	7.556m
Overall Width	2.400m
Overall Body Height	2.365m
Min Body Ground Clearance	0.204m
Max Track Width	2.400m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	7.650m

B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
C	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	13/07/17
D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

The Transport Planning Partnership
Suite 402, 22 Atchison Street
St. Leonards NSW 2065
Tel: 02 8437 7800
Email: info@ttpp.net.au

PROJECT: 4-6 BLIGH STREET, SYDNEY

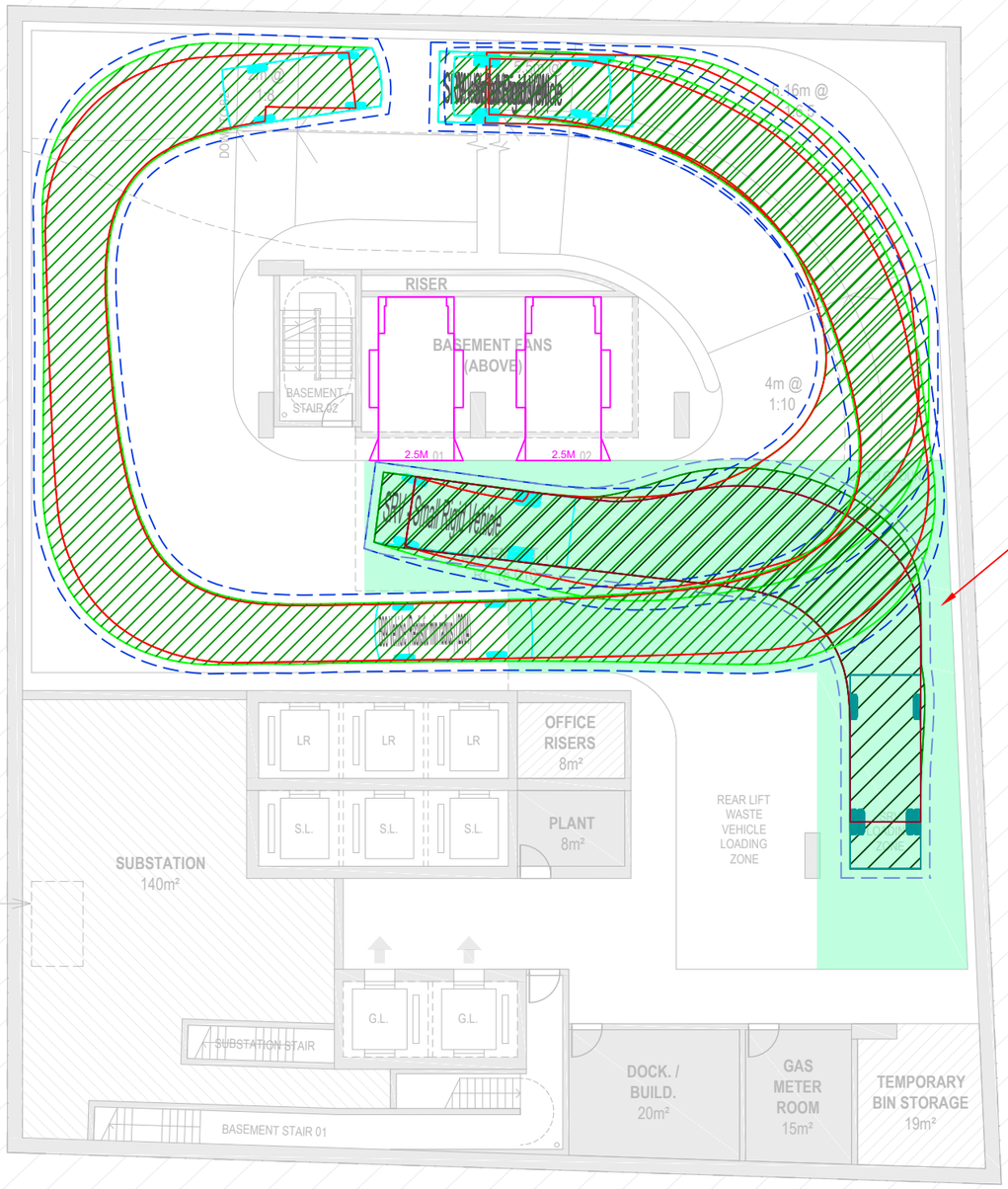
TITLE: VEHICLE ACCESS REVIEW - GROUND LEVEL
B99 CAR, SMALL RIGID VEHICLE AND 7.5m WASTE VEHICLE SWEPT PATH ASSESSMENT

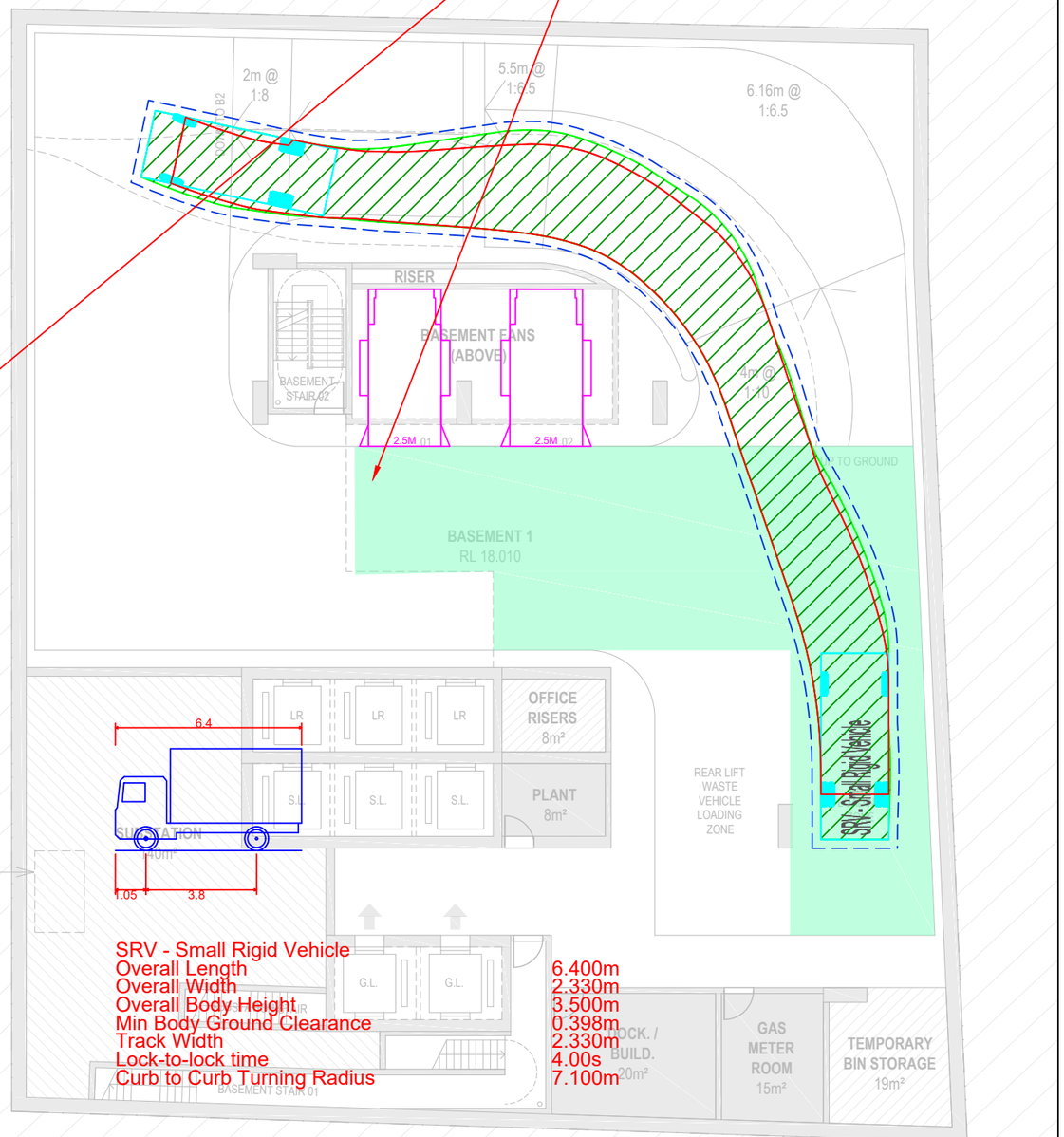
DWG No.: FIGURE 1

DATE STAMP: 25 JULY 2017

PROJECT No.: 17088 | SCALE: 1:200 (@A3) | REV.: D

Filename: 17088A05-Car Park Review-170725.dwg Date: 25 July 2017 By: Lalaine maluan





REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
C	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	13/07/17
D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

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PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: LOADING DOCK - BASEMENT LEVEL 01
6.4m SMALL RIGID VEHICLE SWEPT PATH ASSESSMENT

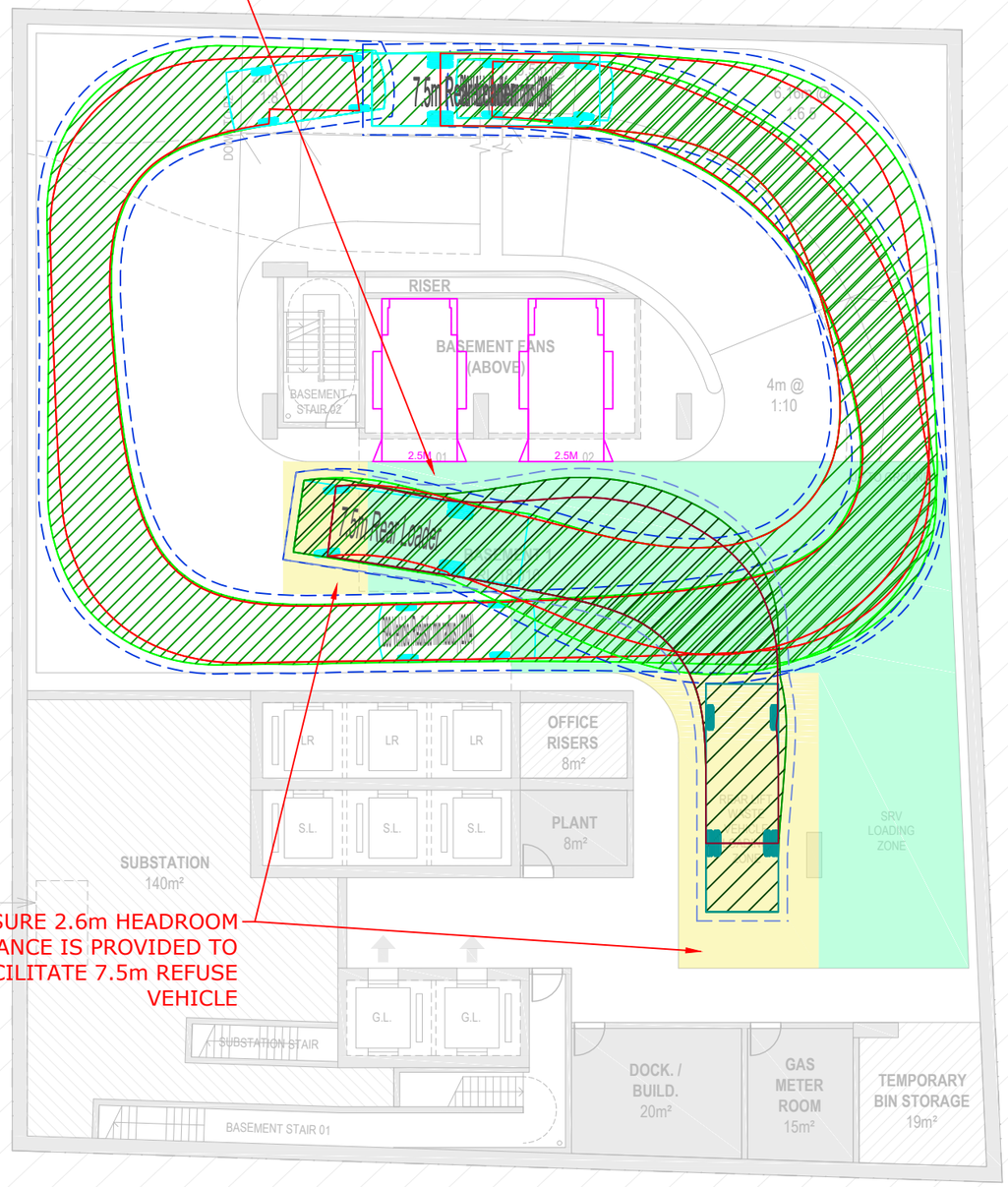
DWG No. FIGURE 2

DATE STAMP 25 JULY 2017

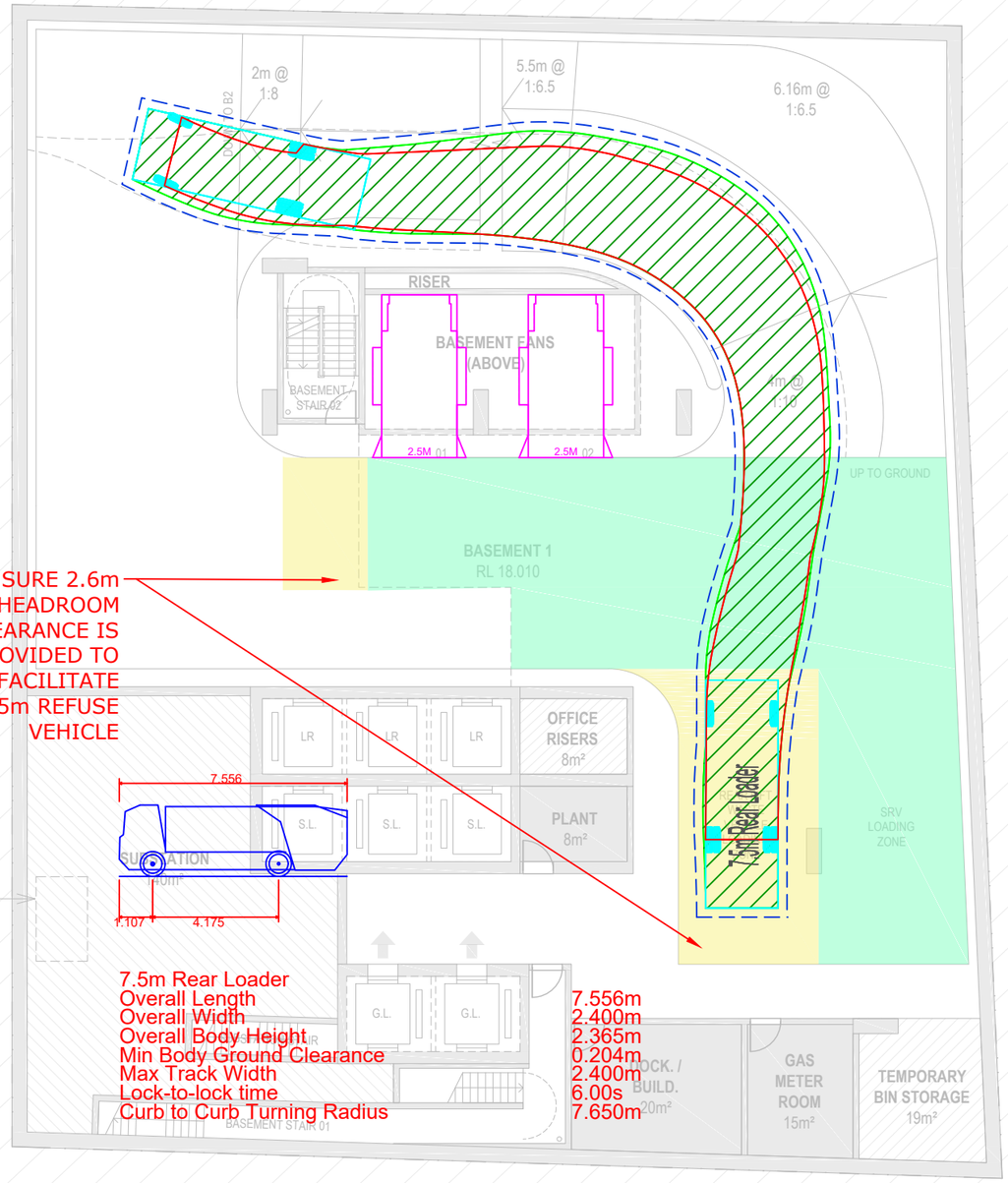
PROJECT No. 17088 | SCALE 1:200 (@A3) | REV. D

Filename: 17088DA05-Car Park Review-170725.dwg Date: 25 July 2017 By: Lalaine malaluan

ENSURE 3.5m HEADROOM CLEARANCE IS PROVIDED TO FACILITATE 6.4m SRV



ENSURE 2.6m HEADROOM CLEARANCE IS PROVIDED TO FACILITATE 7.5m REFUSE VEHICLE



ENSURE 2.6m HEADROOM CLEARANCE IS PROVIDED TO FACILITATE 7.5m REFUSE VEHICLE

7.5m Rear Loader	
Overall Length	7.556m
Overall Width	2.400m
Overall Body Height	2.365m
Min Body Ground Clearance	0.204m
Max Track Width	2.400m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	7.650m

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
C	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	13/07/17
D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

The Transport Planning Partnership
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PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: LOADING DOCK - BASEMENT LEVEL 01
7.5m REFUSE VEHICLE SWEPT PATH ASSESSMENT

DWG No.: FIGURE 3

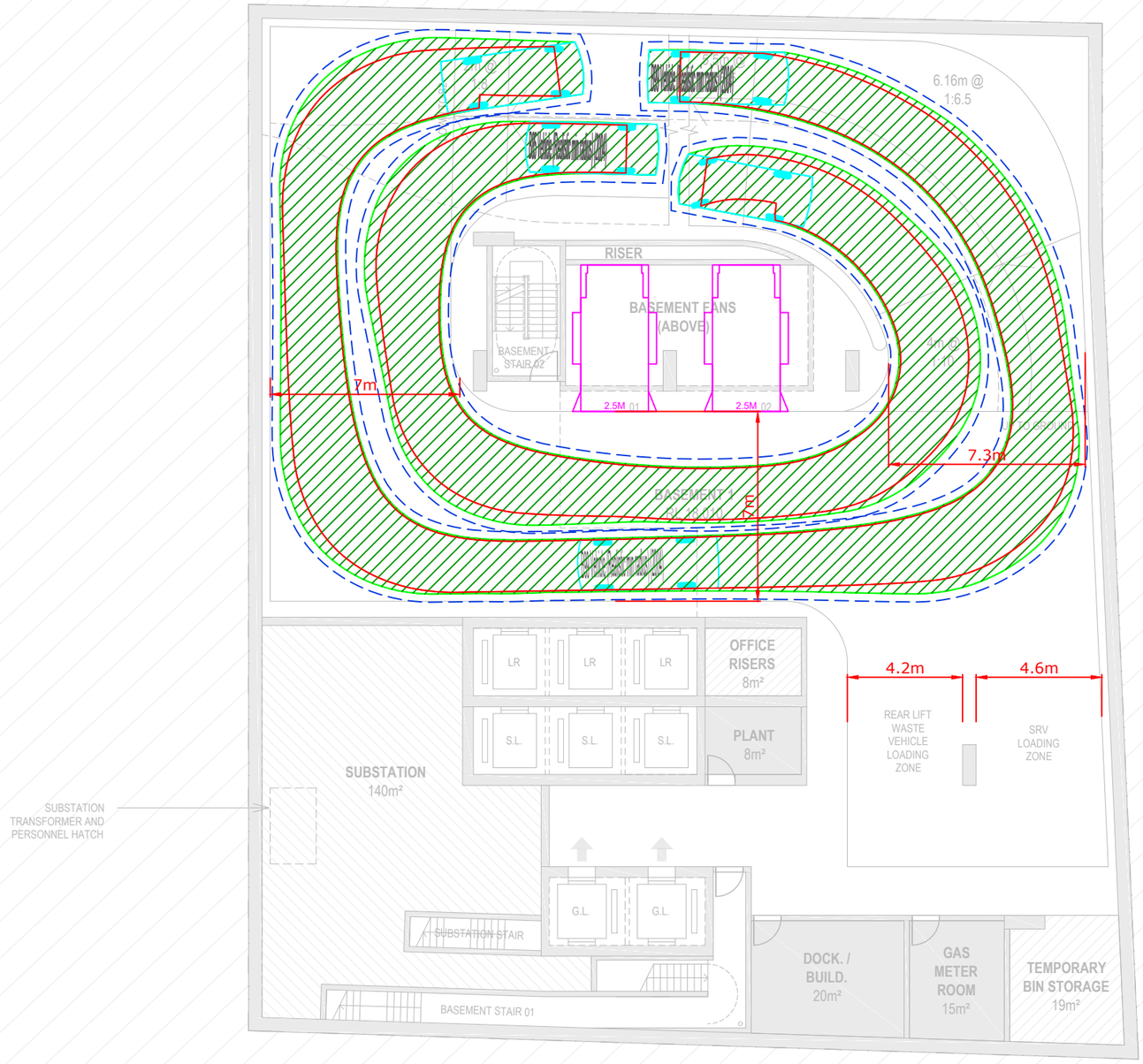
DATE STAMP: 25 JULY 2017

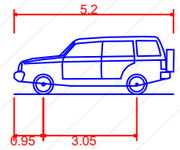
PROJECT No.: 17088

SCALE: 1:200 (@A3)

REV.: D

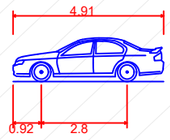
Filename: 17088DA05-Car Park Review-170725.dwg
Date: 25 July 2017
By: Lalaine malauan





B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m



B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
C	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	13/07/17
D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

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Email: info@ttpp.net.au

PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: CAR PARK REVIEW - BASEMENT LEVEL 01

DWG No.: FIGURE 4

DATE STAMP: 25 JULY 2017

PROJECT No.: 17088 | SCALE: 1:200 (@A3) | REV.: D

Filename: 17088SK05-Car Park Review-170725.dwg Date: 25 July 2017 By: Lalaine malabuan

TRAFFIC MANAGEMENT MEASURES TO BE PROVIDED TO MANAGE OVERLAPPING VEHICLE SWEPT PATHS

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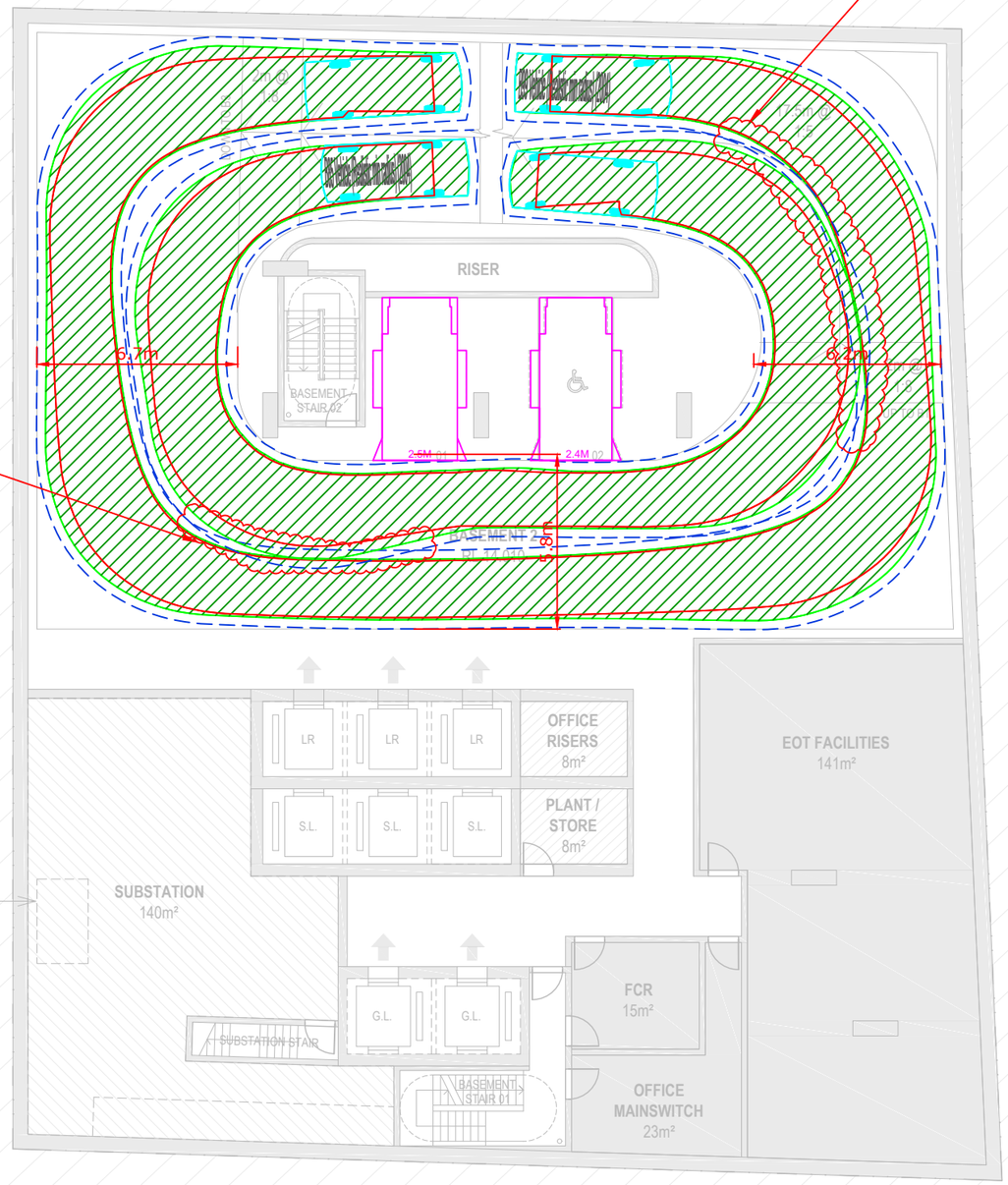
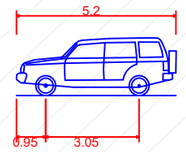
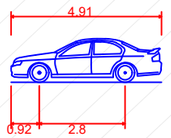




B99 Vehicle (Realistic min radius) (2004)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.878m
Min Body Ground Clearance	0.272m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.250m



B85 Vehicle (Realistic min radius) (2004)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
C	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	13/07/17
D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

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PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: CAR PARK REVIEW - BASEMENT LEVEL 02

DWG No.: FIGURE 5

DATE STAMP: 25 JULY 2017

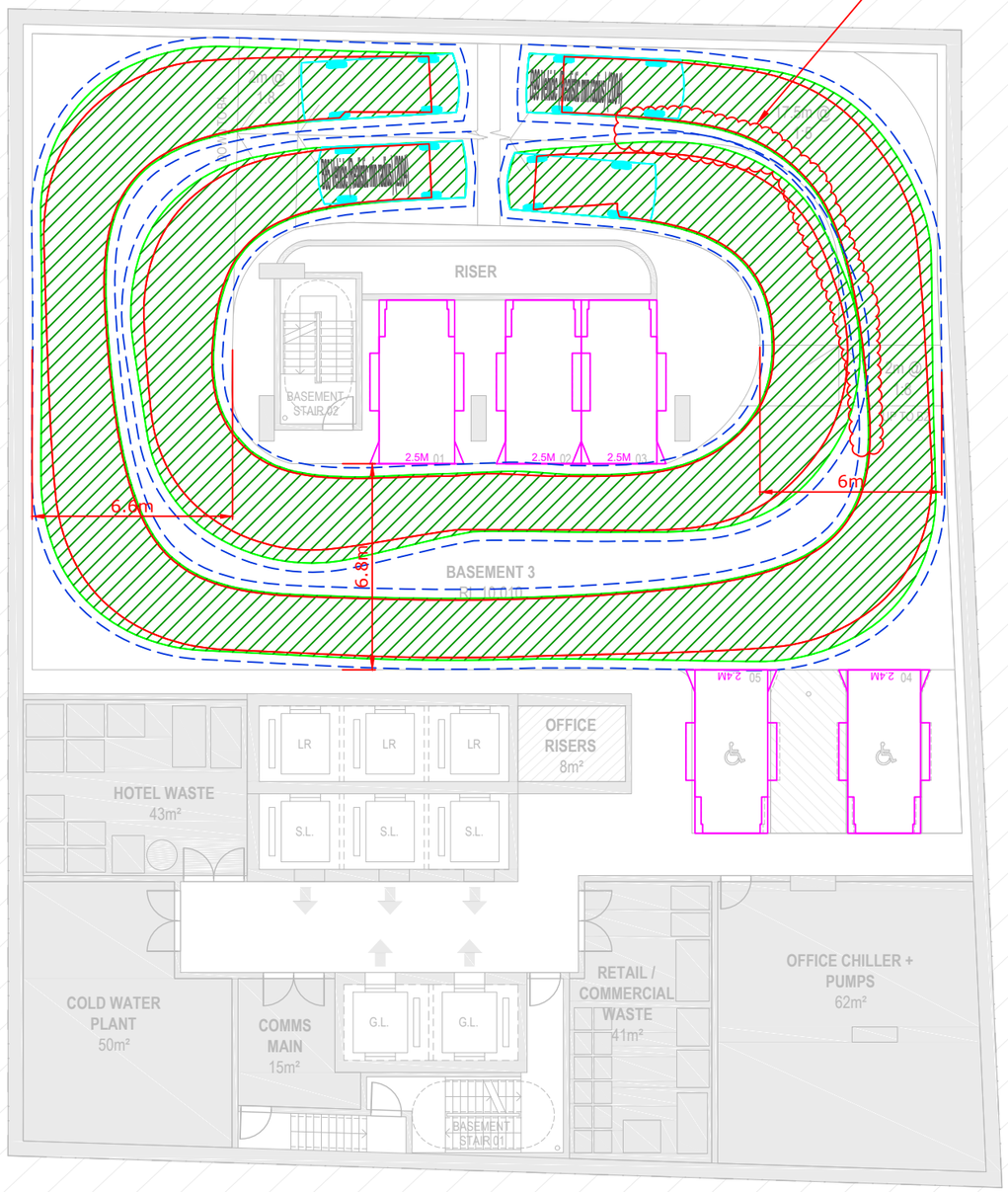
PROJECT No.: 17088

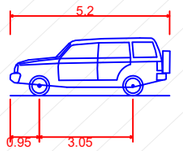
SCALE: 1:200 (@A3)

REV.: D

Filename: 17088DA05-Car Park Review-170725.dwg Date: 25 July 2017 By: Lallaine malakan

TRAFFIC MANAGEMENT MEASURES TO BE PROVIDED TO MANAGE OVERLAPPING VEHICLE SWEPT PATHS





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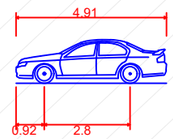

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REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
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D	UPDATED ARCHITECTURAL PLANS	LM	JS	KH	25/07/17

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PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: CAR PARK REVIEW - BASEMENT LEVEL 03

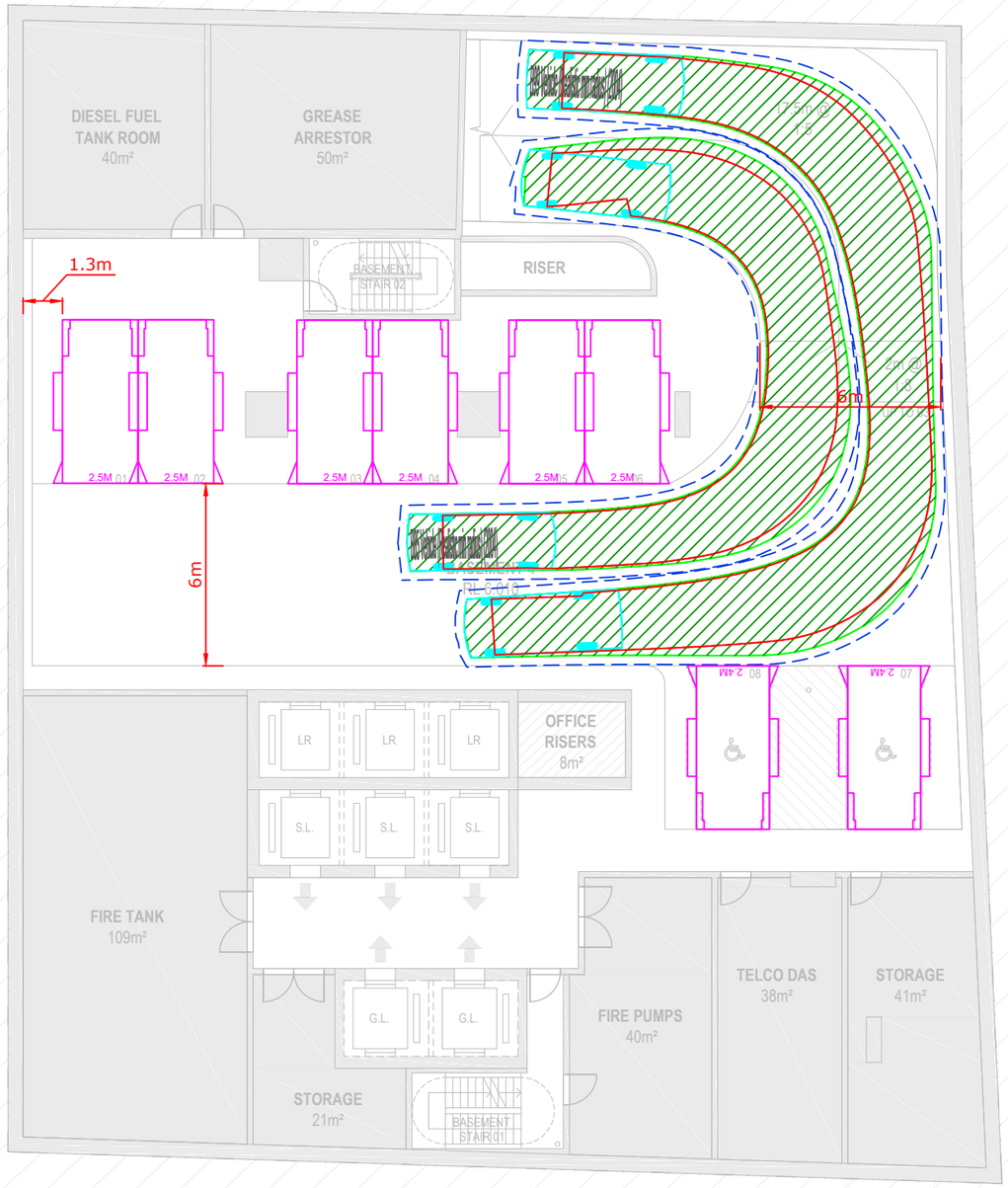
DWG No.: FIGURE 6

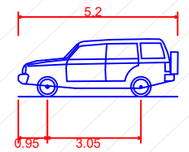
DATE STAMP: 25 JULY 2017

PROJECT No.: 17088

SCALE: 1:200 (@A3)

REV.: D





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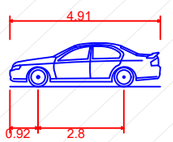

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Min Body Ground Clearance	0.159m
Track Width	1.770m
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Curb to Curb Turning Radius	5.750m

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	JS	ML	KH	13/06/17
B	UPDATED ARCHITECTURAL PLANS	LM	JS	ML	27/07/17
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PROJECT: 4-6 BLIGH STREET, SYDNEY

TITLE: CAR PARK REVIEW - BASEMENT LEVEL 04

DWG No.: FIGURE 7

DATE STAMP: 25 JULY 2017

PROJECT No.: 17088 | SCALE: 1:200 (@A3) | REV.: D

Filename: 17088DA05-Car Park Review-170725.dwg Date: 25 July 2017 By: Lalaine malabuan

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