TRAFFIC IMPACT ASSESSMENT

Proposed Mixed Use Development
24-26 Railway Parade, Westmead

Reference: 16.443r05v01
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1. INTRODUCTION

TRAFFIX has been commissioned by Drill Pty Ltd to undertake a traffic impact assessment (TIA) in support of a development application (DA) relating to mixed-use development at 24-26 Railway Parade, Westmead, comprising of hotel, commercial, supermarket, retail, tavern, food/beverage and medical centre uses. The development is located within the Parramatta Council LGA and has been assessed under that Council's controls.

This report documents the findings of our investigations and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately. The development is a minor development and does not require referral to the RMS under the provisions of SEPP (Infrastructure) 2007.

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Describes the proposed development
- Section 5: Assesses the parking requirements
- Section 6: Assesses traffic impacts
- Section 7: Discusses access and internal design aspects
- Section 8: Presents the overall study conclusions

2. LOCATION AND SITE

The site is located at 24-26 Railway Parade, Westmead and is bound by Ashley Lane to the east, Railway Parade to the south and mixed used developments to the west and the north. The site is located approximately 60 metres north of Westmead Railway Station and 21 kilometres north-west of the Sydney Central Business District.

The site is rectangular in configuration having a total site area of approximately 2,550m^2. It currently accommodates the Westmead Shopping Village (1,380m^2 of retail) and the Westmead Tavern (520m^2).

The site has a southern frontage to Railway Parade and a northern property boundary to a mixed-used development of approximately 46 metres. The eastern boundary frontage is to Ashley Lane with the western boundary to a mixed-used development and are both approximately 50 metres in length. Access to the site is currently provided via a vehicular crossing on Ashley Lane which serves 22 on-site car parking space and three (3) loading spaces.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**.

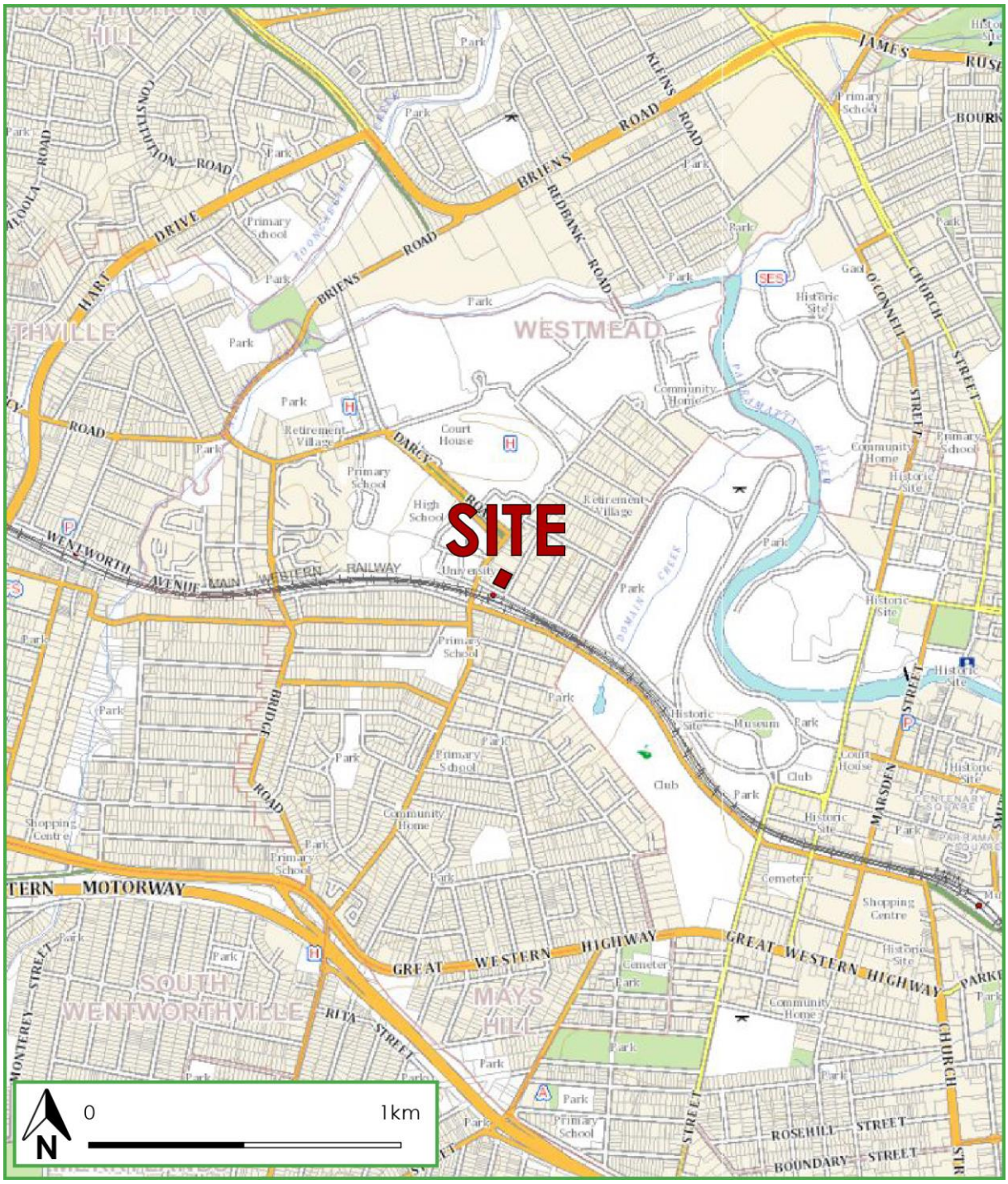

Figure 1: Location Plan

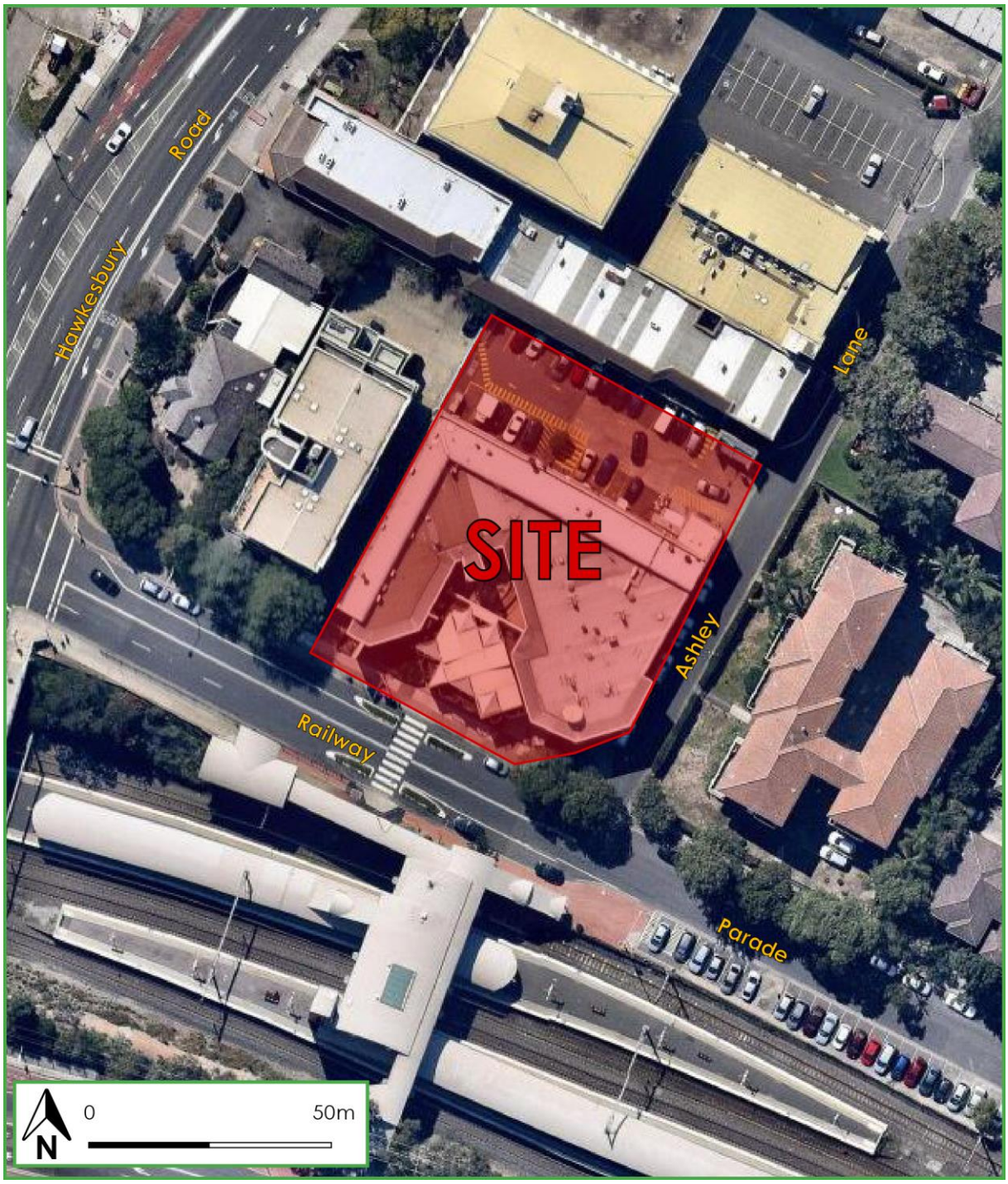

Figure 2: Site Plan

3. EXISTING TRAFFIC CONDITIONS

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- Hawkesbury Road: part of an RMS Main Road (MR 7481), Hawkesbury Road traverses in a north- south direction between Hainsworth Street in the north and The Great Western Highway in the south. Hawkesbury Road generally carries two (2) lanes of traffic in either direction in the proximity of the site. Two (2) northbound lanes are dedicated for vehicles and a short lane dedicated to buses turning onto the T - way. The road also provides two (2) southbound traffic lanes.
- Railway Parade: a local road that traverses in an east-west direction between Park Avenue in the east and Hawkesbury Road in the west. Railway Parade is subject to a 50km/h speed zoning and carries a single lane of traffic in either direction. Kerbside parking is permitted along the northern side of the road, subject to restrictions. 90-degree angled parking is available on the southern side of Railway Parade.
- Queens Road: a local road that traverses in an east-west direction between Park Avenue in the east and Hawkesbury Road in the west. Queens Road is subject to a 50km/h speed zoning and carries a single lane of traffic in either direction. Kerbside parking is permitted along both sides of the road and is subject to a "2P 8:30am-6:00pm Mon-Fri and 8:00am-12:00pm Saturday" restriction.
- Ashley Lane: a local lane that traverses in a north-south direction between Queens Road in the north and Railway Parade in the south. Ashley Lane carries a single lane of traffic which is restricted to one-way flow northbound and provides parallel parking on the western side subject to a "1P 8:00am-6:00pm, Mon-Fri, 8:30am-12:00pm, Saturday" restriction.

It can be seen from Figure 3 that the site is conveniently located with respect to the arterial and sub-arterial road systems serving the region with connections to the north and south using Hawkesbury Road.

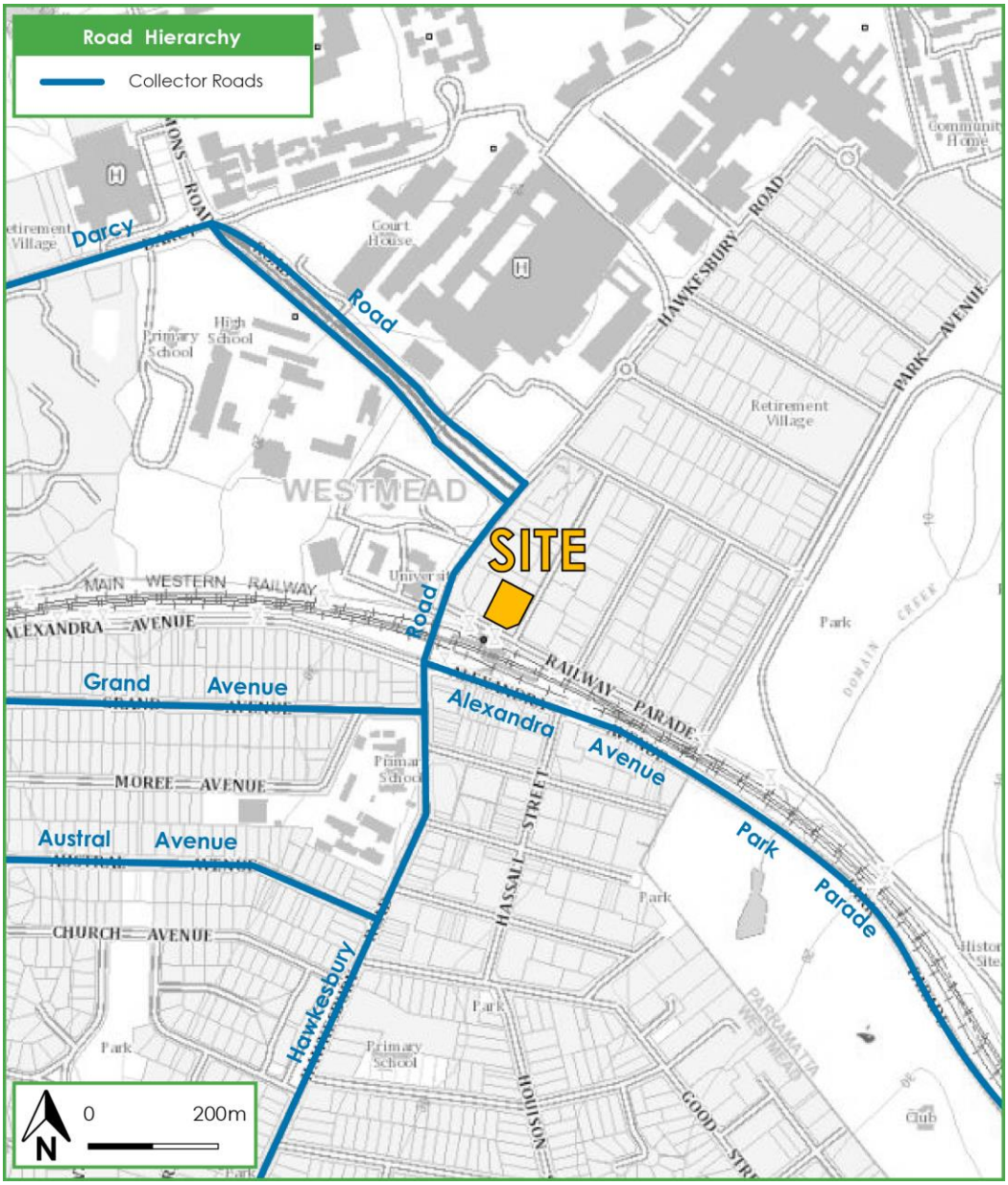

Figure 3: Road Hierarchy

3.2 Public Transport

The site is located adjacent Westmead Railway Station. The services operating at this station are shown in Figure 4 and are summarised as follows:

- T1 – North Shore and Western Line
- T5 – Cumberland Line
- BMT – Blue Mountains Line

The existing bus services that operate in the locality are also shown in Figure 4. It is evident that the development benefits from good bus services with bus stops in either direction being situated within 400 metres of the site. Details of the bus services are shown in **Table 1** below:

Table 1: Bus Services

Bus Route	Service	Bus Route	Service
660	Castlewood to Parramatta	**705**	Blacktown to Parramatta via Seven Hills
661	Blacktown to Parramatta via Kings Langley and North West Twy	**708**	Constitution Hill to Parramatta via Pendle Hill
662	Castle Hill to Parramatta via Bella Vista and North West Twy	**711**	Blacktown to Parramatta via Wentworthville
663	Rouse Hill Station to Parramatta via Kellyville Ridge	**712**	Westmead Children's Hospital to Parramatta
664	Rouse Hill Station to Parramatta via Kellyville	**818**	Westmead to Merrylands
665	Rouse Hill Station to Parramatta	**-**	-

Additionally, the subject site is located in proximity to the Westmead and Parramatta bicycle routes. Pedestrian facilities are also located around the site with pedestrian paths located on both sides of Hawkesbury Road and Railway Parade and on the western side of Ashley Lane. Pedestrian crossing facilities are also provided on Railway Parade providing access to the Westmead Railway Station and on all legs of the Hawkesbury Road/Railway Parade intersection. The bicycle route map has been included in **Appendix A**, for reference.

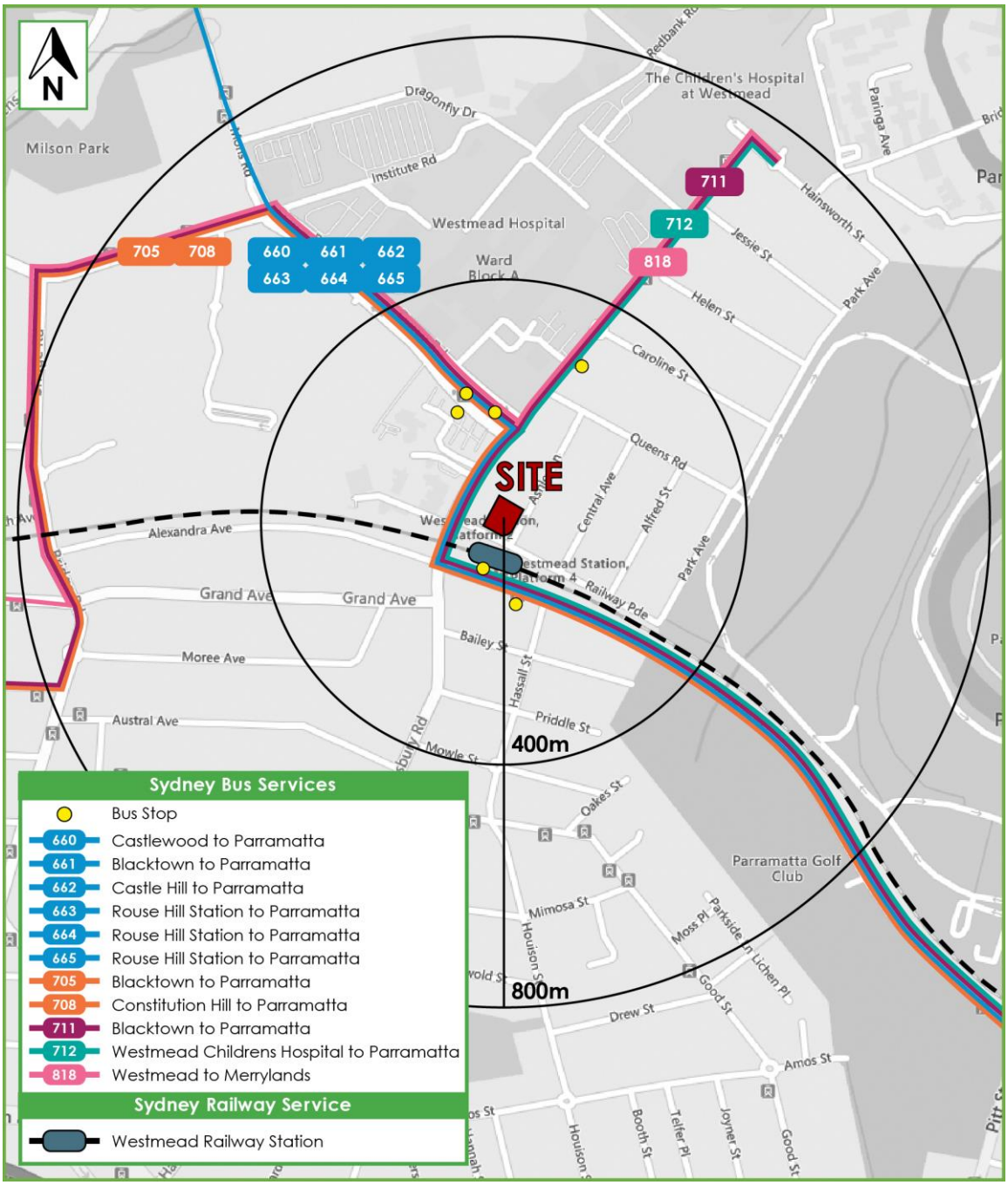

Figure 4: Public Transport

3.3 Parramatta Light Rail

The Parramatta Light Rail is a future project announced by the NSW Government. This will consist of two stages, which centres on the Parramatta City Centre:

- Stage 1: 16 stops between Carlingford in the north and Westmead to the west.
- Stage 2: 10-12 stops between Sydney Olympic Park in the east and joining to the Stage 1 Line between Rydalmere and Camellia.

A Stage 1 Map is included in **Appendix B** where it is evident that stops will be constructed on Hawkesbury Road to the west of the site.

4. DESCRIPTION OF PROPOSED DEVELOPMENT

A detailed description of the proposed development is provided in the Statement of Environmental Effects prepared separately. In summary, the development for which approval is now sought is a 14-storey mixed use development comprising of the following components:

- 100 room hotel.
- 4,030.8m^2 GFA commercial space.
- 1,062.8m^2 GFA supermarket;
- 653.1m^2 GFA retail space.
- 499.9m^2 GFA tavern.
- 568.4m^2 GFA of food and beverage space; and
- 1,894.8m^2 GFA medical centre.

The proposed development will accommodate the following on-site parking facilities:

- A three-level basement providing parking for 126 vehicles;
- A loading dock accessed from Ashley Lane providing:
  - 1 x service bay suitable for a 10.24m waste collection vehicle
  - 2 x service bay suitable for an 8.8m Medium Rigid Vehicle; and
  - 1 x service bay suitable for potential ambulance use.

The Development Application will also propose changes to the public domain including a relocated pedestrian crossing on Railway Parade and a future bus parking restriction to serve the hotel. The parking requirements and traffic impacts arising from the development are discussed in **Sections 5** and **Section 6**, respectively. Reference should be made to the plans submitted separately to Council which are presented at a reduced scale in **Appendix C**

5. PARKING REQUIREMENTS

5.1 Car Parking

5.1.1 Council Controls

Under Part 4.3.4.2 of the *Parramatta Development Control Plan (DCP) 2011*, the site has been identified as belonging to a strategic precinct for 24-26 Railway Parade, Westmead. The applicable parking rates for this precinct are shown listed in **Table 2**:

Table 2: DCP Parking Rates and Provisions

Type	Area / Rooms	Maximum Parking Rate[2]	Maximum Spaces Permissible[3]	Parking Provision
Hotel				
Guests	100 rooms	1 space per 5 rooms	20	25
Employees	5 employees[4]	1 space per 3 employees	2	
		Sub-Total	**22**	**25**
Commercial and Retail				
Commercial (Office)[1]	4,030.8m^2	1 space per 100m^2	40	26
Supermarket[5]	1,062.8m^2	1 space per 30m^2	35	35
Retail	653.1m^2	1 space per 30m^2	22	6
Tavern	499.9m^2	1 space per 100m^2	5	4
Food and Beverage[5]	568.4m^2	1 space per 30m^2	19	26
Medical Centre	1,894.8m^2	1 space per 300m^2	6	5
		Sub-Total	**127**	**102**
		TOTALS	149	**127**

[1] Parking Rate for Commercial Premises adopted from the Parramatta Local Environmental Plan 2011

[2] Site specific rates adopted for 24-26 Railway Parade, Westmead in accordance with Part 4.3.4.2 of the DCP

[3] Parking spaces rounded to the nearest whole number

[4] Estimate

[5] Retail Parking rate adopted for Food and Beverage and Supermarket uses

It can be seen that the proposed development is nominally permitted to provide a maximum of 149 car parking spaces. In response, the proposed development provides a total of 127 car parking spaces, comprising 25 spaces for the hotel component and 102 spaces for the commercial and retail uses. The provision of 127 parking spaces is compliant with the Parramatta DCP and LEP and will ensure all normal parking demands are accommodated on-

site, notwithstanding the minor non-compliance with hotel parking (plus 3 spaces over maximum). In particular, provision for 102 parking spaces has been made for retail and commercial uses, which is expected to compensate for any lost parking spaces on Railway Parade associated with the proposed Bus Zone and public domain works.

5.2 Accessible Parking

Part 3 of the DCP requires the number of accessible car parking spaces to be provided as prescribed in Table D3.5 of the Building Code of Australia (BCA). As the development has a mixture of uses the accessible parking requirements have been summarised in **Table 3** below

Table 3: BCA Accessible Parking Rates and Provisions

Type	Building Class	Accessible Parking Rate	Parking Provision	Accessible Spaces Required	Accessible Spaces Provided
Hotel	3	Percentage of adaptable rooms to overall rooms multiplied by number of spaces	25 (five adaptable rooms)	1.25 (1)	1
Commercial	5	1 space for every 100 carparking spaces or part thereof	26	0.26 (1)	1
Supermarket	6	1 space for every 50 carparking spaces or part thereof	76	1.52 (2)	4
Retail					
Tavern					
Food and Beverage					
Medical Centre	9				
			Totals	**4**	**6**

It can be seen from Table 3 that the proposed development will require a total of four (4) accessible spaces under the BCA. In response, the proposed development provides a total of six (6) accessible spaces comprising a single space for the hotel, a single space for commercial and four (4) spaces for the supermarket, retail, tavern, food and beverage and medical uses, thereby complying with the BCA requirements.

5.3 Bicycle Parking

Part 3.6.2 of the DCP requires bicycle parking to be provided for only certain uses, with applicable rates summarised in **Table 4**.

Table 4: DCP Bicycle Parking Rates and Provision

Type	Area/Rooms	Parking Rate	Bicycle Parking Requirement	Bicycle Parking Provision
Commercial	4,030.8m²	1 space per 200m²	31.6	32
Supermarket	1,062.8m²			
Retail	653.1m²			
Food and Beverage	568.4m²			
		Totals	**32**	**32**

As can be seen that the proposed development has a requirement to provide a total of 32 bicycle parking spaces. In response, the proposed development provides a total of 32 bicycle spaces, thereby complying with the DCP.

5.4 Motorcycle Parking

It is noted that Council's DCP or LEP do not provide motorcycle parking rates for the proposed uses. Nevertheless, provision for eight (8) motorcycle parking spaces has been made within the basement car park.

5.5 Refuse Collection and Servicing

Service vehicle requirements for different development types have been assessed in **Table 5** below. Where rates for specific land uses are not listed in the DCP, rates from the RMS Guide to Traffic Generating Developments (RMSGTGD) have been adopted. It is emphasised that the cumulative requirements for individual land use components is of no particular significance as it takes no account of the ability to manage deliveries through a Loading Dock Management Plan.

Table 5: DCP/ RMS Loading Rates and Provisions

Type	Size	DCP Loading Requirement	RMS Loading Requirements	Loading Requirements	Loading Provision
Hotel	100 rooms	-	1 loading bay per 50 rooms and; 1 space per 1,000m² public space	2	3
Commercial	4,030.8m²	1 loading bay per 400m² GFA		10.1	
Supermarket	1,062.8m²		-	2.7	
Retail	653.1m²		-	1.6	
Tavern	499.9m²	-	1 loading bay per 400 m²	1.2	
Food and Beverage	568.4m²	1 loading bay per 400m² GFA	-	1.4	
Medical Centre (Retail)	1,894.8m²	1 loading bay per 400m² GFA	-	4.7	
			Totals	**23.7 (24)**	**3**

It can be seen that the proposed development would nominally require 24 service bays. Notwithstanding, this provision is considered onerous as the rates assume each land use is a standalone development. In response, provision for three (3) service bays have been provided on a separate basement level to the car park. The service bays can accommodate at any time up to two (2) 8.8m long medium rigid vehicles and a 10.24m long waste collection vehicle.

It is envisaged that based on the large bay sizes that a provision of three (3) loading bays will be sufficient to service the proposed development. This would be achievable as many land uses such as supermarkets, hotels and food & beverage shops have fixed servicing requirements that could be scheduled to occur at complimentary times. Furthermore, waste could be consolidated for users to limit the number of collections occurring per week.

Accordingly, a Loading Dock Management Plan is proposed and can be prepared prior to occupation of the proposed development, subject to a suitable condition of consent. The LDMP would address matters such as:

- Details of all delivery and servicing activities to be carried out for all uses on-site;
- Details of how waste services will be accommodated to meet service requirements;
- Details of vehicle types required to conduct expected activities;
- Details of frequency of vehicles accessing the dock; and
- Management duties and responsibilities.

Finally, it is understood that the existing development on-site contains a comparable amount of retail space (supermarket), however with less provision for service vehicles. The proposal is therefore expected to result in an improvement over existing loading conditions, particularly as there is presently no formal loading dock management plan.

6. TRAFFIC AND TRANSPORT IMPACTS

6.1 Existing Site Generation

The subject site currently accommodates 1,380m^2 GFA of retail use and the Westmead Tavern which has a GFA of 520m^2. The RMSGTGD provides trip rates for retail and tavern developments as follows:

- Retail: 4.6 vehicle trips per 100m^2 of GFA for specialty retail
- Tavern: 1.3 vehicle trips per 100m^2 of GFA (GTA Consultants 2012)

From the application of the RMS Guidelines, it is likely that the current use of the site would generate in the order of 71 trips per hour during the Thursday evening peak period. The PM trips are expected to be split 50:50 between arrivals and departures. As such, the existing traffic generation is expected to be as follows:

- 71 vehicle trips per hour during the evening peak period (36 in, 35 out)

6.2 Development Trip Generation

Given the high proportion of retail uses, the proposed development is expected to generate peak traffic activity during weekday evening periods, with mornings only expected to comprise mostly of journey to work trips. As such, trip rates have been adopted for the PM peak period below, which have either been adopted from the RMSGTGD or are consistent with the Traffic Impact Assessment report accompanying the Planning Proposal for the site.

6.2.1 Hotel

The trip generation rate for the proposed hotel has been adopted from the Traffic Impact Assessment accompanying the Planning Proposal for the site, which was for 0.2 vehicle trips per room.

Application of this rate to the 100 rooms proposed, and adopting a 50:50 directional split results in the following traffic generation:

- 20 vehicle trips per hour during the evening peak period (10 in, 10 out)

6.2.2 Commercial (Office)

The RMS Technical Direction TDT 2013/04a recommends a trip generation rate of 1.2 vehicle trips per 100m^2 GFA during the evening peak period for office block developments.

Application of this rate to the 4,030.8m^2 commercial space and adopting a 20:80 directional split results in the following traffic generation:

- 48 vehicle trips per hour during the evening peak period (10 in, 38 out)

6.2.3 Retail (Supermarket, Retail and Food and Beverage Tenancies)

The RMS Guide to Traffic Generating Developments recommends a trip generation rate of 4.6 vehicle trips per 100m^2 gross leasable floor area (assumed equivalent to gross floor area) during the late night Thursday evening peak period for secondary retail stores, inclusive of take-away shops. It is considered that this rate is also appropriate for the supermarket given the restricted parking supply (and recent trends for extended trading hours across all days of the week). A 50:50 directional split has been adopted for the evening peak.

Accordingly, the proposed supermarket, retail and food & beverage tenancies (2,284 m^2 gross floor area) are expected to generate the following traffic:

- 105 vehicle trips per hour during the evening peak period (52 in, 53 out)

6.2.4 Tavern

The trip generation rate for the proposed tavern has been adopted from the Traffic Impact Assessment accompanying the Planning Proposal for the site, which was for 1.3 vehicle trips per 100m^2 gross floor area. Application of this rate to the proposed 499.9 m^2 gross floor area tavern, and adopting a 50:50 directional split is expected to generate the following traffic genration:

- 6 vehicle trips per hour during the evening peak period (3 in, 3 out)

6.2.5 Medical Centre

The RMS Guide to Traffic Generating Developments recommends a trip generation rate of 2.2 vehicle trips per 100m^2 gross leasable floor area (assumed equivalent to gross floor area) for medical centres within shopping centres during evening peak periods. Application of this rate to the proposed 1,894.8 m^2 gross floor area of medical centre space and adopting a 50:50 directional split results in the following traffic generation:

- 42 vehicle trips per hour during the evening peak period (21 in, 21 out)

6.2.6 Combined Generation

The combined generation of the commercial components can be summarised as follows:

- 221 vehicle trips per hour during the evening peak period (96 in, 125 out)

6.2.7 Net Traffic Generation

The above traffic generation does not take into consideration the volumes presently generated by the site. Accordingly, when accounting for the assessment of the existing development, the proposal is expected to result in the following net increase in traffic:

- 150 vehicle trips per hour during the evening peak period (60 in, 90 out)

6.3 Traffic Distributions

6.3.1 Parramatta Light Rail

Transport for NSW has issued comments in July 2018 with reference to the Parramatta Light Rail project. A copy of this letter is included in **Appendix B** and identifies associated changes to the road network, the following which is of relevance to the site:

- Light Rail on Hawkesbury Road.
- Queens Road becoming one-way westbound between Hawkesbury Road and Ashley Lane.

- Removal of right-turn vehicle access from Hawkesbury Road, northbound into Queens Road.
- Existing pedestrian crossing on Railway Parade proposed to be relocated west to align with a new mid-block pedestrian link (recommendation only).

When assessing the Environmental Impact Statement (EIS) for the project, it is evident that the line rail will terminate north of Railway Parade as illustrated in **Figure 5**. This is consistent with the SIDRA modelling undertaken for the EIS which did not include the intersection of Hawkesbury Road / Railway Parade or Hawkesbury Road / Alexandra Road. It is therefore presumed that these intersections will continue to operate with the same configuration of lanes as existing conditions, whilst the intersection of Hawkesbury Road and Queens Road will be restricted to a left-out intersection only.

Figure 5: Parramatta Light Rail Route (EIS)

6.3.2 Traffic Distributions

Noting that the access for the proposed development will be from Ashley Lane (one-way northbound), the following split of development traffic has been assumed for the purposes of assessing intersection performance:

- 100% of traffic to enter Railway Parade from Hawkesbury Road, with
  - 30% approaching from the north and west (including from Darcy Road),
  - 30% approaching from the south on Hawkesbury Road,
  - 30% approaching from the east on Park Parade, and
  - 10% approaching from the west on Alexandra Avenue.
- 100% of traffic to exit Queens Road left onto Hawkesbury Road, with
  - 30% departing west by turning right onto Darcy Road,
  - 30% departing south on Hawkesbury Road,
  - 20% departing east by turning left onto Park Parade,
  - 10% to recirculate the local road network by turning left onto Railway Parade, and
  - 10% departing west by turning right onto Alexandra Avenue.

6.4 Peak Period Intersection

The performance of the existing road network has been previously assessed for a Planning Proposal lodged for the site in 2012. The accompanying Traffic Impact Assessment report outlined the results of software modelling undertaken for relevant intersections including at Hawkesbury Road / Alexandra Avenue and Hawkesbury Road / Railway Parade. The summary Level of Service parameters show that all intersections were operating within capacity.

TRAFFIX has subsequently undertaken a survey on Thursday 27 September 2018 to account for current external conditions. Noting that the proposed development will have more pronounced impacts during evening periods (having customer generating uses), the two intersections have been remodelled for the PM peak period using SIDRA Intersection 8.0 software. It is noteworthy that this software has since improved in capability to provide network coordination for phasing and a cycle time of 120 seconds has been adopted.

The SIDRA Intersection 8 model produces a range of outputs, the most useful of which are the Degree of Saturation (DoS) and Average Vehicle Delay per vehicle (AVD). The AVD is in turn

related to a level of service (LoS) criteria. These performance measures can be interpreted using the following explanations:

DoS - the DoS is a measure of the operational performance of individual intersections. As both queue length and delay increase rapidly as DoS approaches 1, it is usual to attempt to keep DoS to less than 0.9. When DoS exceeds 0.9 residual queues can be anticipated, as occurs at many major intersections throughout the metropolitan area during peak periods. In this regard, a practical limit at 1.1 can be assumed. For intersections controlled by roundabout or give way/stop control, satisfactory intersection operation is generally indicated by a DoS of 0.8 or less.

AVD - the AVD for individual intersections provides a measure of the operational performance of an intersection. In general, levels of acceptability of AVD for individual intersections depend on the time of day (motorists generally accept higher delays during peak commuter periods) and the road system being modelled (motorists are more likely to accept longer delays on side streets than on the main road system).

LoS - this is a comparative measure which provides an indication of the operating performance of an intersection as shown in **Table 6** below.

Table 6: Intersection Performance Indicators (RMS)

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

A summary of the modelled results is provided below in **Table 7**. Reference should also be made to the SIDRA outputs provided in **Appendix D** which provide detailed results for individual lanes and approaches.

Table 7: Existing and Development Intersection Performances

Intersection	Control	Model	Period	Degree of Saturation	Average Delay (s)	Level of Service
Hawkesbury Road / Alexandra Avenue	Signals	Existing	PM	0.760	35.4	C
		Development		0.793	36.1	C
Hawkesbury Road / Railway Parade	Signals	Existing	PM	0.753	18.0	B
		Development		0.791	24.0	B
Hawkesbury Road / Queens Road	Priority*	Existing	PM	0.597	10.7	B
		Development **		0.256	5.9	A

* SIDRA results reported for priority-controlled intersections relate to the movement with the highest delay, in accordance with the RMS Guide.

** Model includes modified layout in response to changes to accommodate the Parramatta Light Rail Project.

It can be seen from **Table 7** that the intersections of Hawkesbury Road / Alexandra Avenue and Hawkesbury Road / Railway Parade operate at a Level of Service of 'C' or better during the PM peak period in the existing scenario. The priority-controlled intersection upstream at Hawkesbury Road / Queens Road has also been modelled which operates with a Level of Service of 'B' in the existing scenario.

It can be seen that the addition of development traffic will result in minimal increase in average delay for the intersections of Hawkesbury Road / Alexandra Avenue and Hawkesbury Road / Railway Parade, with the Level of Service of 'C' or better, indicating that the road network will have spare capacity.

It is noted that the operation of the intersection of Hawkesbury Road and Queens Road will significantly improve post light railway construction, and this is demonstrated with the average delay reducing from 10.7 seconds to 5.9 seconds in the PM peak period. This corresponds to a change in level of service from 'B' to 'A'.

It is therefore assumed that the traffic impacts arising from the proposed development will be minor, to which it is expected that the impacts during the AM peak period would also be minimal, given that the above assessment accounts for customer generated traffic during a late night trading period (Thursday). In addition, this assessment represents a worst-case scenario, with no account taken of the trip reductions from internalised (multi-purpose) trips that will occur in practice, due to the synergy between each land use component. That is, improved conditions can be expected, with reduced delays and no unacceptable traffic impacts.

7. ACCESS AND INTERNAL DESIGN ASPECTS

7.1 Site Vehicular Access

7.1.1 Carpark Access

Nominal driveway widths for car parks are stipulated in Table 3.2 of the off-street car parking standard AS2890.1 (2004). Notwithstanding, Section 3.2 permits driveway widths to be determined by accepted design procedures should traffic data be more accurately known.

The proposed access location is on Ashley Lane, which is noted to restrict traffic to one-way flow in a northbound direction. As such, the proposed access will in-turn be restricted to a simplified left-in and left-out arrangement.

Accordingly, a swept path analysis has been undertaken of the proposed car park access, which has a minimum width of 5.5m. The results of the analysis are presented in **Appendix E** and demonstrate that simultaneous flow can occur between entering and exiting vehicles.

The proposed car park access is therefore expected to operate satisfactorily in accordance with the provisions in the standard.

7.1.2 Loading Dock Access

A separate access for the loading dock has been proposed on Ashley Lane, with a minimum width of 4.6m. Under the off-street commercial vehicle parking standard AS2890.2 (2018), the loading arrangements for the proposed development are considered to be consistent with 'regular service' on a 'minor road'. These conditions bear the following requirements:

- *"Where providing regular service from a minor road, manoeuvring on-street, if permitted by the relevant authority, shall be strictly limited to one reverse movement either onto or off the street, and be subject to determination of both safety and obstruction to other on-street traffic."*
- *"The swept path of the maximum size design vehicle using the facility may be allowed to occupy the entire width (less specified clearances) of a two-way access driveway when the vehicle is entering or leaving the minor road."*

In response the proposed access has been designed to accommodate forward entry and exit movements as evidenced by the swept path analysis in **Appendix E** for the largest vehicle to enter the loading dock, being a 10.24m waste collection vehicle. This arrangement will therefore result in a safer outcome than a reverse entry movement whilst minimising obstruction.

Prior to a Construction Certificate, further details will be provided regarding a traffic signal system that will be implemented to facilitate flow between the access and loading dock on Level LB1.

7.2 Internal Design

The design of the proposed development generally complies with AS2890.1 (2004), AS2890.2 (2018) and AS2890.6 (2009), with the following considered noteworthy:

7.2.1 Parking Modules

- All retail car parking spaces have been designed to User Class 3 dimensions with parking bays being a minimum 2.6 metres in width, 5.4 metres in length and provided a minimum 5.8 metre aisle.
- All commercial car parking spaces have been designed to User Class 1A dimensions with parking bays being a minimum 2.4 metres in width, 5.4 metres in length and provided a minimum 5.8 metre aisle.
- All hotel car parking spaces have been designed to User Class 2 dimensions with parking bays being a minimum 2.5 metres in width, 5.4 metres in length and provided a minimum 5.8 metre aisle.
- All accessible car parking spaces have been designed in accordance with AS2890.6 (2009), having a minimum space length of 5.4 metres, a minimum width of 2.4 metres with and are located adjacent to a 2.4 metre wide shared area.
- Ten (10) parking spaces have been designed in accordance with Small Car dimensions under AS2890.1 (2004), which achieve a minimum space width of 2.3m and space length of 5.0m.

- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.
- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1 (2004).

7.2.2 Ramps and Clear Head Heights

- The main vehicular access ramp to the site is provided with a maximum grade of 1:20 (5%) for the first 6.0 metres within the property boundary, satisfying Clause 3.3(b) of AS2890.1 (2004).
- Ramps associated with the basement car park have a maximum gradient of 20% (1 in 5) for a length not exceeding 20 metres.

7.2.3 Clear Head Heights

- A minimum clear head height of 2.2m is to be provided for all other areas within the basement car park as required by AS2890.1 (2004).
- A clear head height of 2.5m is to be provided above all accessible parking spaces and shared areas, as required by AS2890.6 (2009).
- A minimum clear head height of 4.5 metres is to be provided within the loading area as required under AS2890.2 (2002). A vertical clearance test has been undertaken with the results in **Appendix F** demonstrating that this height is achieved for a template 12.5m Heavy Rigid Vehicle.

7.2.4 Loading

- The internal design of the service area has been undertaken in accordance with the requirements of AS28090.2 (2018) for the maximum length vehicle permissible on-site being a 10.24m waste collection vehicle.
- A minimum bay width of 3.5m is provided for all service bays.
- A turntable has been provided to ensure forward exit movements for bays located at each end. The turntable has been designed for vehicles up to the size of an 8.8m MRV and a swept path analysis has been undertaken for critical reverse movements in **Appendix E**.

7.2.5 Other Considerations

- The 2.0m by 2.5m sight distance triangles illustrated in Figure 3.3 of AS2890.1 (2004) are strictly achieved for the proposed Ashley Lane accesses. Notwithstanding, it is acknowledged that pedestrians may walk inside the actual property due to a 3.0 metre building setback.

  Accordingly, the walls within the building have been splayed to ensure the sight distance triangles are clear of obstructions to visibility at the car park access. This is also strictly achieved for one side of the loading dock access, whilst the other side has been splayed by 1.4m by 7.4m (to facilitate entry movements). It is anticipated that these provisions will allow exiting drivers to stop for pedestrians, achieving the intent of the standard.

7.3 Summary

In summary, the internal configuration of the car park has been designed in accordance with AS 2890.1 (2004) and AS 2890.6 (2009). It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.

7.4 External Design Aspects

The Development Application will also propose changes to the public domain including:

- A relocated pedestrian crossing further west on Railway Parade to align with a pedestrian site link. This is consistent with the proposed measures outlined in the Transport for NSW letter in relation to the Parramatta Light Rail project.
- An on-street bus parking restriction on Railway Parade to replace an existing 11m "1/4 P 8:00am – 6:00pm, Mon-Fri" restriction. The bus parking restriction will serve demands for the proposed hotel.

A plan of the existing signage on Railway Parade is included in **Appendix G** for reference and the proposed changes to the public domain are illustrated in a plan in **Appendix H**. The proposal is considered supportable noting that the availability of parking available for town centre use will effectively increase with the provision of on-site basement parking.

8. CONCLUSIONS

The following is noteworthy:

- This Development Application seeks approval to construct a 14 storey mixed-use development at 24-26 Railway Parade in Westmead. It is to comprise of a 100 room hotel, commercial, supermarket, retail, tavern, food and beverage and medical centre uses.
- Under the Parramatta DCP and LEP, the proposed development is permitted to provide a maximum of 149 parking spaces based on the site specific controls applicable for 24-26 Railway Parade and the Paramatta LEP. In response, provision for 127 spaces has been made, thereby complying with Council and State planning controls.
- The proposed development has been assessed to generate a net increase of 150 vehicle trips per hour during the critical evening peak period which would comprise of customer trips. Additional software modelling has supplemented the analysis supporting the Planning Proposal, to which the increases in delays at intersections on Hawkesbury Road will be minimal with spare capacity.
- The design of the proposed development generally complies with AS2890.1 (2004), AS2890.2 (2018) and AS2890.6 (2009) with a swept path analysis demonstrating satisfactory operation of accesses and critical internal movements.

This traffic impact assessment therefore demonstrates that the subject application is supportable on traffic planning grounds. TRAFFIX anticipates an ongoing involvement during the development approval process.

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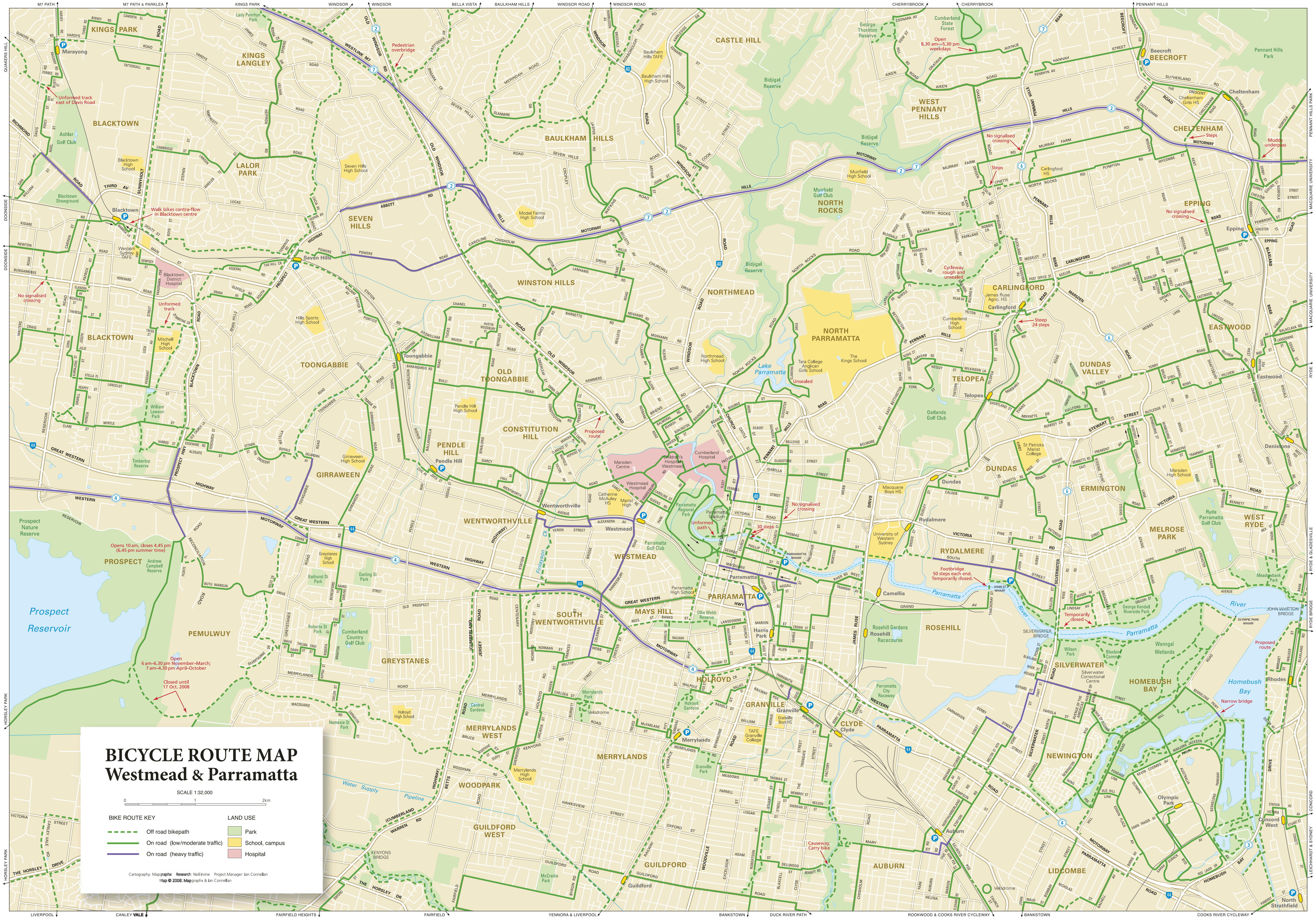
APPENDIX A

Westmead and Parramatta Bicycle Routes



BICYCLE ROUTE MAP
Westmead & Parramatta
SCALE 1:32,000
0
1
2km
BIKE ROUTE KEY
Off road bikepath
On road (low/moderate traffic)
On road (heavy traffic)
LAND USE
Park
School, campus
Hospital
Cartography: Mapgraphx Research: Neil Irvine Project Manager: Ian Connellan
Map © 2008: Mapgraphx & Ian Connellan
KINGS PARK
KINGS LANGLEY
CASTLE HILL
BEECROFT
BLACKTOWN
LALOR PARK
SEVEN HILLS
BAULKHAM HILLS
WEST PENNANT HILLS
CHELTENHAM
NORTH ROCKS
EPPING
WINSTON HILLS
NORTHMEAD
CARLINGFORD
NORTH PARRAMATTA
EASTWOOD
TOONGABBIE
OLD TOONGABBIE
TELOPEA
DUNDAS VALLEY
CONSTITUTION HILL
PENDLE HILL
GIRRAWEEN
DUNDAS
ERMINGTON
WENTWORTHVILLE
WESTMEAD
RYDALMERE
MELROSE PARK
WEST RYDE
PROSPECT
PARRAMATTA
MAYS HILL
SOUTH WENTWORTHVILLE
ROSEHILL
PEMULWUY
Prospect Reservoir
GREYSTANES
HOLROYD
SILVERWATER
HOMEBUSH BAY
GRANVILLE
CLYDE
MERRYLANDS WEST
MERRYLANDS
NEWINGTON
WOODPARK
GUILDFORD WEST
GUILDFORD
AUBURN
LIDCOMBE
Parramatta River
Homebush Bay
Lake Parramatta
Walk bikes contra-flow in Blacktown centre
Unformed track east of Davis Road
No signalised crossing
Unformed track
Pedestrian overbridge
Open 8.30 am—5.30 pm weekdays
No signalised crossing
Steps
Muddy underpass
Cycleway rough and unsealed
Steep 24 steps
Unsealed
Proposed route
Unformed path
30 steps
Footbridge 50 steps each end. Temporarily closed.
Temporarily closed
Proposed route
Narrow bridge
Opens 10 am, closes 4.45 pm (6.45 pm summer time)
Open 6 am–6.30 pm November–March; 7 am–4.30 pm April–October
Closed until 17 Oct. 2008
Causeway. Carry bike
M7 PATH
M7 PATH & PARKLEA
KINGS PARK
WINDSOR
BELLA VISTA
BAULKHAM HILLS
WINDSOR ROAD
CHERRYBROOK
PENNANT HILLS
LIVERPOOL
CANLEY VALE
FAIRFIELD HEIGHTS
FAIRFIELD
YENNORA & LIVERPOOL
BANKSTOWN
DUCK RIVER PATH
ROOKWOOD & COOKS RIVER CYCLEWAY
COOKS RIVER CYCLEWAY
MACQUARIE UNIVERSITY
RYDE
RYDE & GLADESVILLE
RYDE BRIDGE
CONCORD
LEICHHARDT & SYDNEY
QUAKERS HILL
DOONSIDE
HORSLEY PARK

APPENDIX B

Parramatta Light Rail Project – Map and Traffic Changes Letter

NSW GOVERNMENT

Parramatta Light Rail

Preferred alignment – Stage 1

- Stage 1 preferred alignment
- Light rail stops
- Line to depot only
- Train station
- Bus interchange
- Ferry terminus

Carlingford
Telopea
Dundas
Rydalmere
Camellia
Tramway Avenue
Harris Street
Parramatta Square
Eat Street
Prince Alfred Square
Fennell Street
Factory Street
Cumberland Hospital
Children's Hospital at Westmead
Westmead Hospital
Westmead Station
STABLING AND MAINTENANCE FACILITY
ROSEHILL RACECOURSE
WESTERN SYDNEY STADIUM
PARRAMATTA PARK
PENNANT HILLS ROAD
WINDSOR ROAD
JAMES RUSE DRIVE
KISSING POINT ROAD
VICTORIA ROAD
GRAND AVENUE
MACQUARIE ST
GEORGE ST
MACARTHUR STREET
SMITH ST
CHURCH STREET
O'CONNELL STREET
FACTORY ST
HAWKESBURY RD
GREAT WESTERN HWY
Parramatta North
Parramatta
Westmead
Rosehill

NSW GOVERNMENT | Transport for NSW

18 July 2018

Anthony Blood
Development Assessment Officer
City of Parramatta
PO Box 32
Parramatta NSW 2124

Dear Anthony,

RE: DA/381/2018 24-26 Railway Parade, Westmead. NSW 2145

Thank you for referring the above proposal to TfNSW (Parramatta Light Rail) for review and comment.

The EIS for the Parramatta Light Rail (Stage 1) was on exhibition during October 2017 and shows that the light rail route will connect Parramatta's CBD with the Westmead Health precinct, Parramatta North Urban Transformation Program, the new Western Sydney Stadium, three Western Sydney University campuses, the relocated Powerhouse Museum, Rosehill Racecourse, the Camellia Precinct and redevelopment at Telopea.

TfNSW plans to commence construction of the Parramatta Light Rail (PLR) by 2019 and for it to be operational in 2023.

During the construction and operation phases of the Parramatta Light Rail Project there will be intermittent, short and long term road closures, as well as material changes to road network operations. These changes may impact pedestrian, cyclist and vehicular access routes to the proposed development.

The traffic changes implemented by PLR in the precinct include:

- Signalisation of Caroline Street and Hawkesbury Road intersection
- Park Avenue converted to one-way southbound only between Hainsworth and Jessie Street
- Jessie Street one way westbound between Hawkesbury Road and Park Avenue (left out only at Hawkesbury Road)
- Queens Road one-way westbound between Hawkesbury Road and Ashley Lane
- Removal of right-turn vehicle access from Hawkesbury Road, northbound into Queens Road and Jessie Street.
- Light rail on Hawkesbury Road
- Heavy vehicle access for Parramatta Park via Park Parade will be restricted to:
    - Access into the park via Railway Parade, Park Parade and right turn into the park at the Queens Road gatehouse.
    - Access out of the park via the Queens Road gatehouse into Queens Road and left turn only onto Hawkesbury Road.
- Changes to parking availability on Railway Parade

<u>Recommendations</u>

- Existing pedestrian crossing on Railway Parade proposed to be relocated west to align with new Mid-block pedestrian link.

- Mid-block link provides good opportunity for alternative pedestrian movement between Railway Parade and Hawkesbury Road. This will reduce dependence on constrained footpath next to Light Rail Terminus.
- Public Domain upgrade to Railway Parade including new trees. This work needs to be coordinated with station TAP upgrade and PLR public domain works.
- DA proposed 100+ basement car spaces accessed via Ashley Lane. Increased vehicle movements will not assist in creating a more walkable pedestrian-friendly Precinct. PLR recommends the number of basement car spaces are significantly reduced.
- Potential construction staging conflicts between development and Light Rail main infrastructure works. Works need to be coordinated with PLR.
- High density mixed use development, including four storey podiums, is arguably not inconsistent with State Government planning principles around railway stations.
- Parramatta Light Rail advises that an analysis should be undertaken by the proponent to demonstrate vehicle movements can work within the context of road changes in the surrounding area. All construction activities including traffic management must be coordinated with Parramatta Light Rail.
- Suggest proponent to provide civil works plan showing road, driveway and kerb adjustments proposed as well as site plan showing the location of proposed external utility connections to allow TfNSW to provide comments on these interfaces.

Parramatta Light Rail advises that an analysis should be undertaken by the proponent to demonstrate vehicle movements can work within the context of road changes in the surrounding area. All construction activities including traffic management must be coordinated with Parramatta Light Rail.

Thank you for the opportunity to provide comment on this planning proposal. Please contact Gideon Chapman Gideon.Chapman@transport.nsw.gov.au if you would like to discuss the comments raised.

Yours sincerely

Tim Poole

pp ~~**Andrew Quarmby**~~ TIM POOLE.
~~Acting~~ Program Director

cc: Grant Knoetz, TfNSW

APPENDIX C

Reduced Architectural Plans

DA SUBMISSION

Notes

ALL EXISTING CONDITIONS TO BE CHECKED ON SITE. ALL DIMENSIONS AND SETOUTS TO BE VERIFIED PRIOR TO COMMENCEMENT ON SITE. ALL OMISSIONS OR DISCREPANCIES TO BE NOTIFIED TO THE ARCHITECT.

Nominated Architect: Nick Sissons NSW ARB 7210

1. DESIGN RESOLUTION
1.1 The drawings show the general architectural intent for the purposes of this Development Application.
1.2 The internal layouts shown are indicative and subject to further detailed design development.
1.3 Dimensions given are general and subject to detailed design resolution
1.4 Landscaping shown is indicative only and subject to further detailed design.
1.5 The location of plant, equipment and services as shown on drawings is indicative only and subject to further detailed design development. Minor elements eg flues, vent pipes, aerials etc have been omitted for clarity

2. GRAPHIC REPRESENTATION
2.1 Generic colours have been used on to indicate the design intent and are not accurate representations of the actual colours of the selected materials.
2.2 Colours on plans are used for diagrammatic purposes and do not reflect the colours of the selected materials

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3.1 The extent and location of the existing services and structures shown on drawings is based on the survey information provided to date. Final locations are to be determined on site.
3.2 Existing levels shown on the drawings are based upon the existing survey information provided or extrapolated from existing spot levels provided.
3.3 All levels are relative to the Australian Height Datum (AHD)

LEGEND

- BASEMENT CARPARK
- HOTEL - BOH & STAFF
- RETAIL - OTHER
- RISER
- SERVICES / PLANT
- VERTICAL CIRCULATION
- VERTICAL CIRCULATION - LIFT

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
1 : 100 @A1
(Half Scale @ A3)

North

Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

Drawing Title
PROPOSED PLAN - LOWER GROUND FLOOR

Project No.	Drawing No.	Stage	Rev
16-021	PL-11-01	PLANNING	A

23/04/2020 11:54:23 AM

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

DA SUBMISSION

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

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LEGEND

- BASEMENT CARPARK
- HOTEL - BOH & STAFF
- RETAIL - OTHER
- RETAIL - SUPERMARKET
- RISER
- SERVICES / PLANT
- VERTICAL CIRCULATION
- VERTICAL CIRCULATION - LIFT
- WC - ACCESSIBLE
- WC - FEMALE
- WC - MALE

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
1 : 100 @A1
[Half Scale @ A3]

North

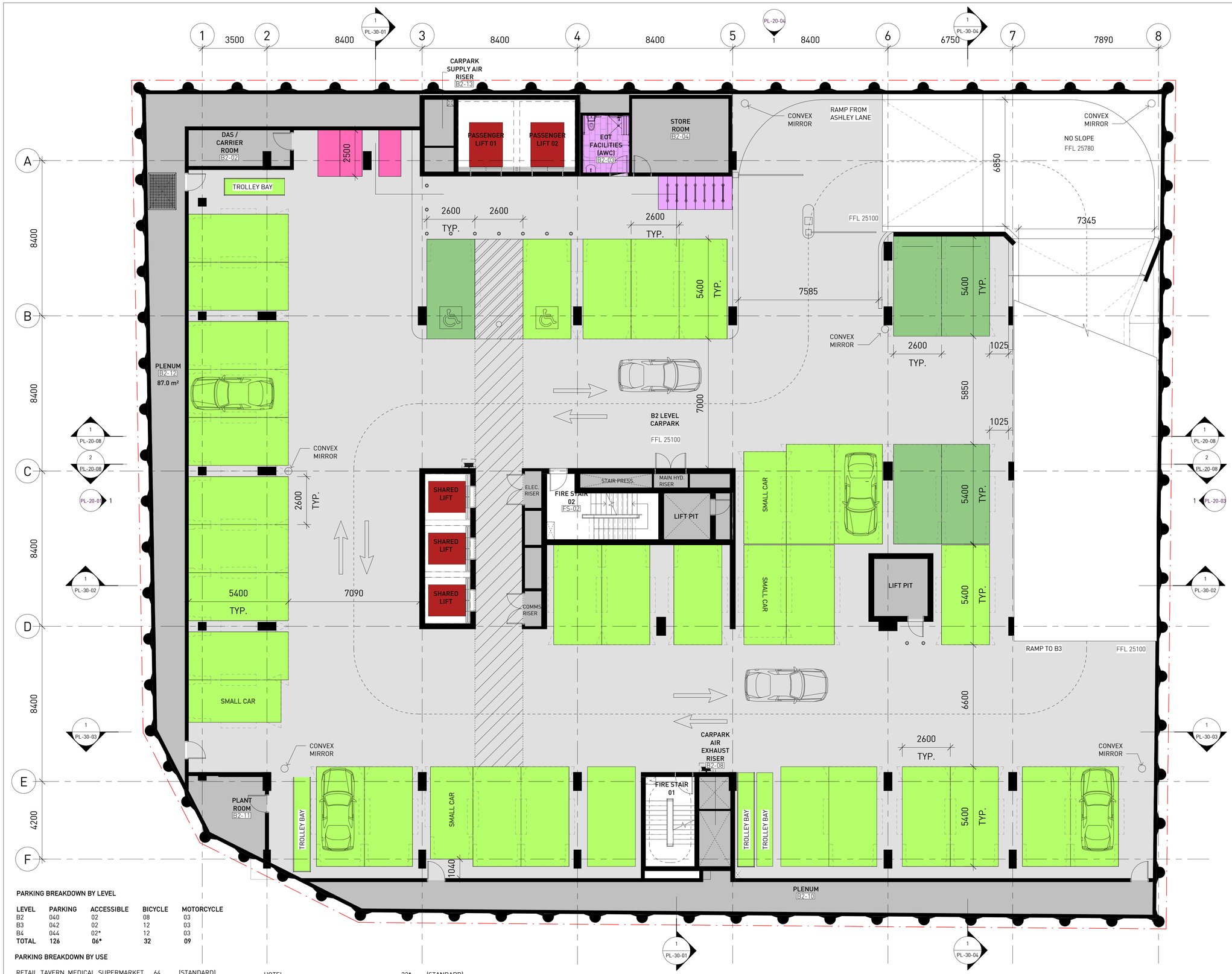
Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

Drawing Title
PROPOSED PLAN - LEVEL B1 (LOADING DOCK)

Project No.	Drawing No.	Stage	Rev
16-021	PL-10-04	PLANNING	A

23/04/2020 11:54:00 AM



PARKING BREAKDOWN BY LEVEL

LEVEL	PARKING	ACCESSIBLE	BICYCLE	MOTORCYCLE
B2	040	02	08	03
B3	042	02	12	03
B4	044	02*	12	03
TOTAL	**126**	**06***	**32**	**09**

PARKING BREAKDOWN BY USE

RETAIL, TAVERN, MEDICAL, SUPERMARKET B2, B3	64	(STANDARD)
	04	(ACCESSIBLE)
	08	(SMALL CAR)
	06	(MOTORCYCLE)
COMMERCIAL B3, B4	24	(STANDARD)
	01**	(ACCESSIBLE)
	01	(SMALL CAR)
	01	(MOTORCYCLE)
HOTEL B4	22*	(STANDARD)
	02**	(ACCESSIBLE)
	01	(SMALL CAR)
	02	(MOTORCYCLE)

NOTES
* STANDARD CAR SPACE (GRIDLINE 8-F) CAN BE USED AS AN OVERFLOW ACCESSIBLE CAR SPACE. REFER TO DDA CONSTULANT REPORT FOR DETAILS.

** SHARED ACCESSIBLE SPACE TO BE USED BETWEEN THE COMMERCIAL & HOTEL. REFER TO DDA CONSULTANT REPORT FOR DETAILS.

DA SUBMISSION

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

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CAR PARK DIMENSIONS (M)

TYPICAL PARKING BAY	2.6 X 5.4
TYPICAL AISLE WIDTH	6.6
SMALL CAR PARK BAY	2.3 X 5.0
SMALL CAR AISLE WIDTH	5.8
BICYCLE PARKING BAY	0.5 X 1.8
MOTORCYCLE PARKING BAY	1.2 X 2.5

PARKING LEGEND

	SUPERMARKET	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	RETAIL	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	TAVERN	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	F & B	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	MEDICAL CENTRE	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	5.8M
	COMMERCIAL	MIN. CAR PARK SPACE	2.4 X 5.4
		MIN. AISLE WIDTH	6.2M
	SHARED HOTEL /COMMERCIAL ACCESSIBLE	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	HOTEL	MIN. CAR PARK SPACE	2.5 X 5.4
		MIN. AISLE WIDTH	5.8M
	HOTEL OVERFLOW ACCESSIBLE	MIN. CAR PARK SPACE	2.6 X 5.4
		MIN. AISLE WIDTH	6.6M
	BICYCLE	MIN. PARK SPACE	0.5 X 1.8
		MIN. AISLE WIDTH	1.5M
	MOTORCYCLE	MIN. PARK SPACE	1.2 X 2.5

PARKING MANAGEMENT STRATEGY

A 'TICKETLESS' PARKING SYSTEM IS PROPOSED .
THIS WILL PROVIDE GREATER FLEXIBILITY TO MEDIUM TERM USERS (MEDICAL CENTRE/APPROVED STAFF MEMBERS, ETC) TO PARK FOR LONGER DURATIONS (WITHOUT PAYMENT) THROUGH NUMBER PLATE RECOGNITION, WHILE DISCOURAGING USE BY COMMUTERS.

REFER TO TRAFFIC ENGINEER'S STATEMENT FOR DETAILS

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
1 : 100 @A1
(Half Scale @ A3)

North

Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

Drawing Title
PROPOSED PLAN - LEVEL B2 (BASEMENT CAR PARK)

Project No.	Drawing No.	Stage	Rev
16-021	PL-10-03	PLANNING	A

23/04/2020 11:53:36 AM

PARKING BREAKDOWN BY LEVEL

LEVEL	PARKING	ACCESSIBLE	BICYCLE	MOTORCYCLE
B2	040	02	08	03
B3	042	02	12	03
B4	044	02*	12	03
TOTAL	**126**	**06***	**32**	**09**

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DA SUBMISSION

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

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PARKING LEGEND

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	MIN. AISLE WIDTH	6.6M
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	MIN. AISLE WIDTH	6.6M
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	MIN. AISLE WIDTH	6.6M
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	MIN. AISLE WIDTH	6.2M
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	MIN. AISLE WIDTH	6.6M
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	MIN. AISLE WIDTH	6.6M
BICYCLE	MIN. PARK SPACE	0.5 X 1.8
	MIN. AISLE WIDTH	1.5M
MOTORCYCLE	MIN. PARK SPACE	1.2 X 2.5

PARKING MANAGEMENT STRATEGY

A 'TICKETLESS' PARKING SYSTEM IS PROPOSED .
THIS WILL PROVIDE GREATER FLEXIBILITY TO MEDIUM TERM USERS (MEDICAL CENTRE/APPROVED STAFF MEMBERS, ETC) TO PARK FOR LONGER DURATIONS (WITHOUT PAYMENT) THROUGH NUMBER PLATE RECOGNITION, WHILE DISCOURAGING USE BY COMMUTERS.

REFER TO TRAFFIC ENGINEER'S STATEMENT FOR DETAILS

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
1 : 100 @A1
(Half Scale @ A3)

North

Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

Drawing Title
PROPOSED PLAN - LEVEL B3 (BASEMENT CAR PARK)

Project No.	Drawing No.	Stage	Rev
16-021	PL-10-02	PLANNING	A

23/04/2020 11:53:20 AM

PARKING BREAKDOWN BY LEVEL

LEVEL	PARKING	ACCESSIBLE	BICYCLE	MOTORCYCLE
B2	040	02	08	03
B3	042	02	12	03
B4	044	02*	12	03
TOTAL	**126**	**06***	**32**	**09**

PARKING BREAKDOWN BY USE

RETAIL, TAVERN, MEDICAL, SUPERMARKET B2, B3	64	(STANDARD)
	04	(ACCESSIBLE)
	08	(SMALL CAR)
	06	(MOTORCYCLE)
COMMERCIAL B3, B4	24	(STANDARD)
	01**	(ACCESSIBLE)
	01	(SMALL CAR)
	01	(MOTORCYCLE)
HOTEL B4	22*	(STANDARD)
	02**	(ACCESSIBLE)
	01	(SMALL CAR)
	02	(MOTORCYCLE)

NOTES
* STANDARD CAR SPACE (GRIDLINE 8-F) CAN BE USED AS AN OVERFLOW ACCESSIBLE CAR SPACE. REFER TO DDA CONSTULANT REPORT FOR DETAILS.

** SHARED ACCESSIBLE SPACE TO BE USED BETWEEN THE COMMERCIAL & HOTEL. REFER TO DDA CONSULTANT REPORT FOR DETAILS.

DA SUBMISSION

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

Notes

ALL EXISTING CONDITIONS TO BE CHECKED ON SITE. ALL DIMENSIONS AND SETOUTS TO BE VERIFIED PRIOR TO COMMENCEMENT ON SITE. ALL OMISSIONS OR DISCREPANCIES TO BE NOTIFIED TO THE ARCHITECT.

Nominated Architect: Nick Sissons NSW ARB 7210

1. DESIGN RESOLUTION
1.1 The drawings show the general architectural intent for the purposes of this Development Application.
1.2 The internal layouts shown are indicative and subject to further detailed design development.
1.3 Dimensions given are general and subject to detailed design resolution
1.4 Landscaping shown is indicative only and subject to further detailed design.
1.5 The location of plant, equipment and services as shown on drawings is indicative only and subject to further detailed design development. Minor elements eg flues, vent pipes, aerials etc have been omitted for clarity

2. GRAPHIC REPRESENTATION
2.1 Generic colours have been used on to indicate the design intent and are not accurate representations of the actual colours of the selected materials.
2.2 Colours on plans are used for diagrammatic purposes and do not reflect the colours of the selected materials

3. EXISTING STRUCTURES AND SERVICES
3.1 The extent and location of the existing services and structures shown on drawings is based on the survey information provided to date. Final locations are to be determined on site.
3.2 Existing levels shown on the drawings are based upon the existing survey information provided or extrapolated from existing spot levels provided.
3.3 All levels are relative to the Australian Height Datum (AHD)

CAR PARK DIMENSIONS (M)

TYPICAL PARKING BAY	2.6 X 5.4
TYPICAL AISLE WIDTH	6.6
SMALL CAR PARK BAY	2.3 X 5.0
SMALL CAR AISLE WIDTH	5.8
BICYCLE PARKING BAY	0.5 X 1.8
MOTORCYCLE PARKING BAY	1.2 X 2.5

PARKING LEGEND

SUPERMARKET	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
RETAIL	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
TAVERN	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
F & B	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
MEDICAL CENTRE	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	5.8M
COMMERCIAL	MIN. CAR PARK SPACE	2.4 X 5.4
	MIN. AISLE WIDTH	6.2M
SHARED HOTEL /COMMERCIAL ACCESSIBLE	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
HOTEL	MIN. CAR PARK SPACE	2.5 X 5.4
	MIN. AISLE WIDTH	5.8M
HOTEL OVERFLOW ACCESSIBLE	MIN. CAR PARK SPACE	2.6 X 5.4
	MIN. AISLE WIDTH	6.6M
BICYCLE	MIN. PARK SPACE	0.5 X 1.8
	MIN. AISLE WIDTH	1.5M
MOTORCYCLE	MIN. PARK SPACE	1.2 X 2.5

PARKING MANAGEMENT STRATEGY

A 'TICKETLESS' PARKING SYSTEM IS PROPOSED .
THIS WILL PROVIDE GREATER FLEXIBILITY TO MEDIUM TERM USERS (MEDICAL CENTRE/APPROVED STAFF MEMBERS, ETC) TO PARK FOR LONGER DURATIONS (WITHOUT PAYMENT) THROUGH NUMBER PLATE RECOGNITION, WHILE DISCOURAGING USE BY COMMUTERS.

REFER TO TRAFFIC ENGINEER'S STATEMENT FOR DETAILS

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
1 : 100 @A1
(Half Scale @ A3)

North

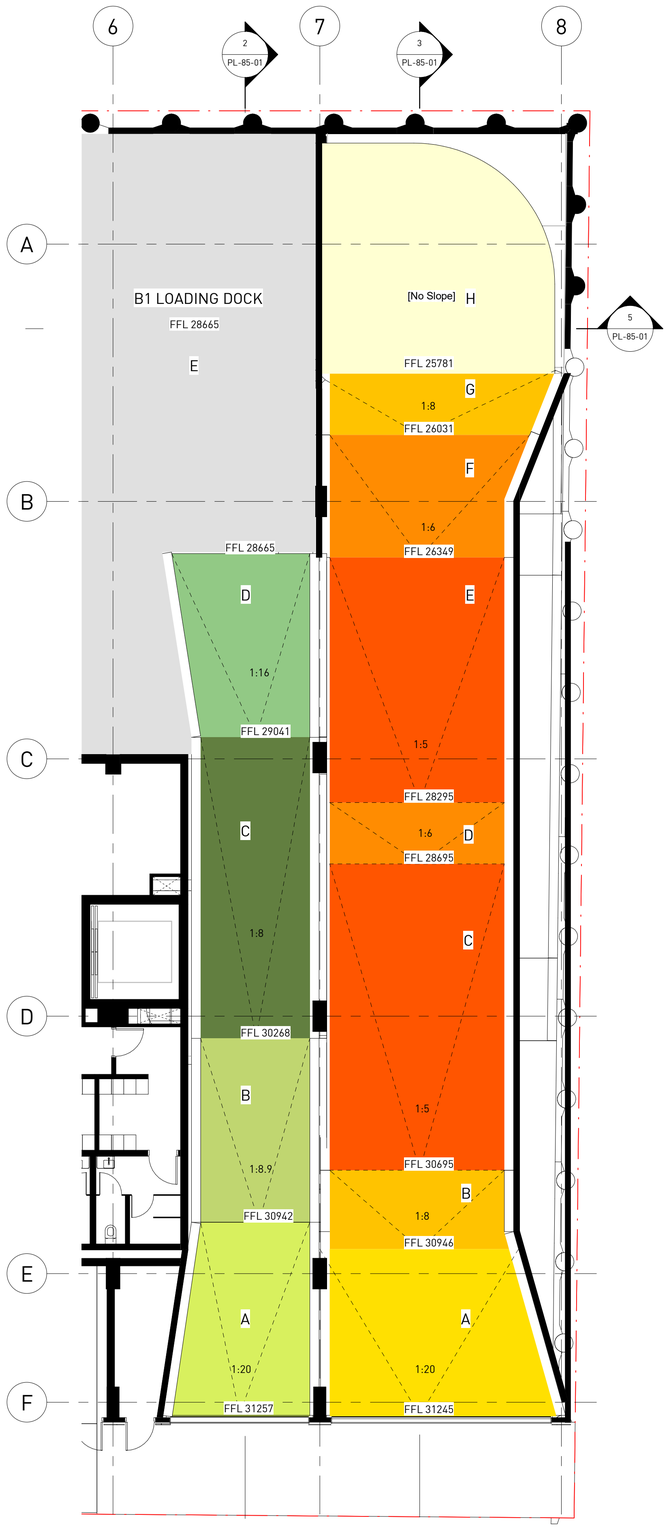
Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

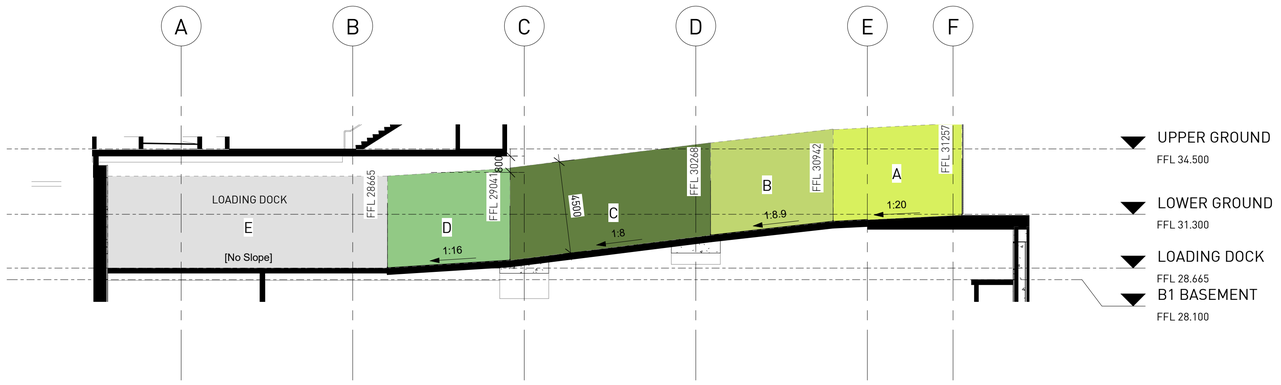
Drawing Title
PROPOSED PLAN - LEVEL B4 (BASEMENT CAR PARK)

Project No.	Drawing No.	Stage	Rev
16-021	PL-10-01	PLANNING	A

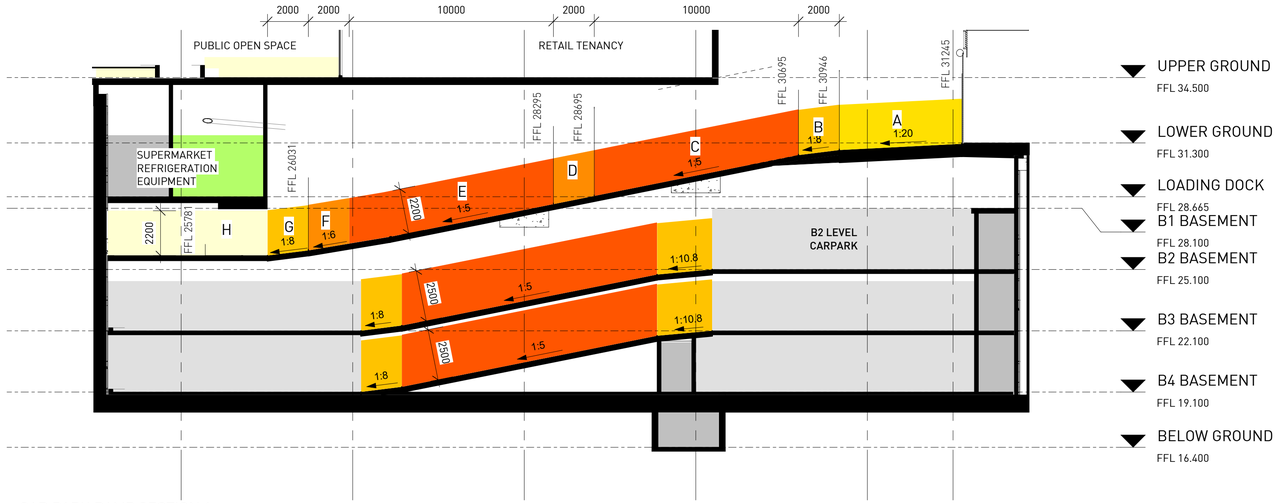
23/04/2020 11:53:05 AM



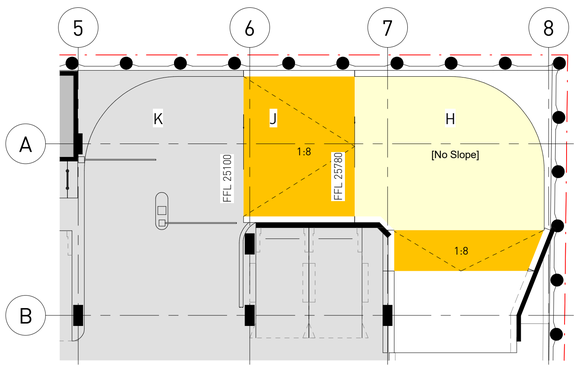
1 VEHICLE RAMPS PLAN
1 : 100



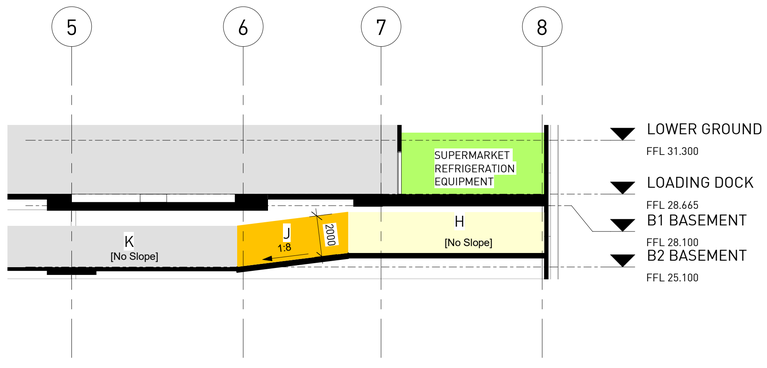
2 LOADING DOCK SECTION
1 : 150



3 CAR PARK RAMP SECTION 1
1 : 150



4 B2 CAR PARK RAMP PLAN
1 : 150



5 CAR PARK RAMP SECTION 2
1 : 150

DA SUBMISSION

Notes

ALL EXISTING CONDITIONS TO BE CHECKED ON SITE. ALL DIMENSIONS AND SETOUTS TO BE VERIFIED PRIOR TO COMMENCEMENT ON SITE. ALL OMISSIONS OR DISCREPANCIES TO BE NOTIFIED TO THE ARCHITECT.

Nominated Architect: Nick Sissons NSW ARB 7210

Rev	Date	Revision Description
A	24.04.20	DA SUBMISSION

Client
DRILL P/L

Scale
As indicated @A1
(Half Scale @ A3)

North

Project
WEST GROVE
24-26 Railway Parade, Westmead, NSW 2145.

Architect
sissons.
a: Level 5, 53 Berry Street, North Sydney, NSW 2060.
p: 02 8904 1853

Drawing Title
VEHICLE ENTRY AND RAMP ANALYSIS

Project No.	Drawing No.	Stage	Rev
16-021	PL-85-01		A

23/04/2020 12:40:53 PM

A1 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 DO NOT SCALE DIMENSIONS FROM DRAWING

APPENDIX D

Traffic Surveys

Date: 5 October 2018
Ref: 18120

Kedar Ballurkar
TRAFFIX

By email: Kedar.Ballurkar@traffix.com.au

Dear Kedar,

Re: Intersection Movement Survey
WESTMEAD

As instructed by your offices we have now completed the required surveys according to our agreed scope of works at the following location(s):

- WESTMEAD
  1. Signalized Cross Intersection of Hawkesbury Road and Alexandra Avenue
  2. Signalized T-intersection of Hawkesbury Road and Railway Parade
  3. T-intersection of Queens Road and Hawkesbury Road

I attach herewith our surveys output (both in PDF and XLS formats) for your perusal. I trust that this submission is suitable to your requirements and look forward to the opportunity of assisting you in your future projects. Should you require further clarification of the results please do not hesitate to contact myself at 0430 160 889.

Thank you.

Yours sincerely,

Nicholas Lo

Nicholas Lo

Location	Hawkesbury Road		**Duration**	0700 - 0900	
	Alexandra Avenue			1600 - 1800	
	Hawkesbury Road			-	
	Alexandra Avenue		**Day/Date**	Thursday, September 27, 2018	
Suburb	WESTMEAD		**Weather**	-	

All Vehicles Time Per 15 Mins	NORTH *Hawkesbury Road*										EAST *Alexandra Avenue*										TOTAL		
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
6:00 - 6:15	23	8	**31**	49	1	**50**	12	0	**12**	**93**	4	0	**4**	20	0	**20**	29	5	**34**	**58**	323	18	**341**
6:15 - 6:30	34	11	**45**	78	0	**78**	9	0	**9**	**132**	9	0	**9**	21	1	**22**	29	9	**38**	**69**	455	25	**480**
6:30 - 6:45	43	10	**53**	83	2	**85**	7	0	**7**	**145**	8	0	**8**	19	0	**19**	43	5	**48**	**75**	498	20	**518**
6:45 - 7:00	37	11	**48**	79	7	**86**	21	0	**21**	**155**	15	0	**15**	27	0	**27**	72	7	**79**	**121**	538	29	**567**
7:00 - 7:15	62	8	**70**	107	4	**111**	9	0	**9**	**190**	12	0	**12**	18	1	**19**	48	6	**54**	**85**	561	23	**584**
7:15 - 7:30	62	9	**71**	90	1	**91**	11	0	**11**	**173**	4	0	**4**	30	0	**30**	62	11	**73**	**107**	549	27	**576**
7:30 - 7:45	46	8	**54**	100	4	**104**	28	0	**28**	**186**	8	0	**8**	40	0	**40**	35	7	**42**	**90**	496	26	**522**
7:45 - 8:00	49	5	**54**	98	6	**104**	20	1	**21**	**179**	1	0	**1**	23	0	**23**	50	7	**57**	**81**	512	25	**537**
Period End	**356**	**70**	**426**	**684**	**25**	**709**	**117**	**1**	**118**	**1253**	**61**	**0**	**61**	**198**	**2**	**200**	**368**	**57**	**425**	**686**	**3932**	**193**	**4125**
15:00 - 15:15	39	8	**47**	170	3	**173**	12	0	**12**	**232**	9	0	**9**	63	1	**64**	46	6	**52**	**125**	462	19	**481**
15:15 - 15:30	56	6	**62**	167	1	**168**	13	0	**13**	**243**	10	0	**10**	65	0	**65**	46	7	**53**	**128**	490	15	**505**
15:30 - 15:45	58	8	**66**	177	0	**177**	26	0	**26**	**269**	8	0	**8**	47	0	**47**	42	7	**49**	**104**	510	15	**525**
15:45 - 16:00	47	7	**54**	177	0	**177**	18	0	**18**	**249**	5	1	**6**	74	0	**74**	52	9	**61**	**141**	523	19	**542**
16:00 - 16:15	48	7	**55**	170	1	**171**	23	0	**23**	**249**	8	1	**9**	66	0	**66**	49	9	**58**	**133**	510	18	**528**
16:15 - 16:30	68	9	**77**	145	0	**145**	17	0	**17**	**239**	12	0	**12**	65	0	**65**	57	11	**68**	**145**	534	20	**554**
16:30 - 16:45	58	9	**67**	164	0	**164**	20	0	**20**	**251**	12	1	**13**	64	0	**64**	49	11	**60**	**137**	543	22	**565**
16:45 - 17:00	53	6	**59**	161	2	**163**	17	1	**18**	**240**	7	0	**7**	67	1	**68**	46	8	**54**	**129**	520	18	**538**
Period End	**427**	**60**	**487**	**1331**	**7**	**1338**	**146**	**1**	**147**	**1972**	**71**	**3**	**74**	**511**	**2**	**513**	**387**	**68**	**455**	**1042**	**2630**	**97**	**4238**

All Vehicles Time Per 15 Mins	SOUTH *Hawkesbury Road*										WEST *Alexandra Avenue*										TOTAL		
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	TOTAL
6:00 - 6:15	4	0	**4**	110	3	**113**	1	0	**1**	**118**	9	1	**10**	62	0	**62**				**72**	323	18	**341**
6:15 - 6:30	3	0	**3**	174	2	**176**	0	0	**0**	**179**	27	0	**27**	71	2	**73**				**100**	455	25	**480**
6:30 - 6:45	6	0	**6**	192	3	**195**	0	0	**0**	**201**	27	0	**27**	70	0	**70**				**97**	498	20	**518**
6:45 - 7:00	4	0	**4**	183	4	**187**	0	0	**0**	**191**	28	0	**28**	72	0	**72**				**100**	538	29	**567**
7:00 - 7:15	5	0	**5**	213	3	**216**	0	0	**0**	**221**	16	0	**16**	71	1	**72**				**88**	561	23	**584**
7:15 - 7:30	5	0	**5**	197	6	**203**	1	0	**1**	**209**	18	0	**18**	69	0	**69**				**87**	549	27	**576**
7:30 - 7:45	4	0	**4**	144	7	**151**	0	0	**0**	**155**	9	0	**9**	82	0	**82**				**91**	496	26	**522**
7:45 - 8:00	6	0	**6**	176	5	**181**	0	0	**0**	**187**	20	0	**20**	69	1	**70**				**90**	512	25	**537**
Period End	**37**	**0**	**37**	**1389**	**33**	**1422**	**2**	**0**	**2**	**1461**	**154**	**1**	**155**	**566**	**4**	**570**				**725**	**3932**	**193**	**4125**
15:00 - 15:15	7	0	**7**	74	1	**75**	0	0	**0**	**82**	7	0	**7**	35	0	**35**				**42**	462	19	**481**
15:15 - 15:30	8	0	**8**	82	0	**82**	0	0	**0**	**90**	11	0	**11**	32	1	**33**				**44**	490	15	**505**
15:30 - 15:45	13	0	**13**	76	0	**76**	0	0	**0**	**89**	16	0	**16**	47	0	**47**				**63**	510	15	**525**
15:45 - 16:00	14	0	**14**	78	1	**79**	0	0	**0**	**93**	9	0	**9**	49	1	**50**				**59**	523	19	**542**
16:00 - 16:15	5	0	**5**	70	0	**70**	0	0	**0**	**75**	23	0	**23**	48	0	**48**				**71**	510	18	**528**
16:15 - 16:30	9	0	**9**	98	0	**98**	0	0	**0**	**107**	12	0	**12**	51	0	**51**				**63**	534	20	**554**
16:30 - 16:45	8	0	**8**	101	1	**102**	0	0	**0**	**110**	18	0	**18**	49	0	**49**				**67**	543	22	**565**
16:45 - 17:00	10	0	**10**	86	0	**86**	0	0	**0**	**96**	19	0	**19**	54	0	**54**				**73**	520	18	**538**
Period End	**74**	**0**	**74**	**665**	**3**	**668**	**0**	**0**	**0**	**742**	**115**	**0**	**115**	**365**	**2**	**367**				**482**	**2630**	**97**	**4238**

Traffic Information Specialists

ABN: 42 613 389 923

Email info@trafficinfospecialist.com.au

Location	Hawkesbury Road	**Duration**	0700 - 0900
	Alexandra Avenue		1600 - 1800
	Hawkesbury Road		-
	Alexandra Avenue	**Day/Date**	Thursday, September 27, 2018
Suburb	WESTMEAD	**Weather**	-

All Vehicles Time Per Hour	NORTH *Hawkesbury Road*										EAST *Alexandra Avenue*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
6:00 - 7:00	137	40	**177**	289	10	**299**	49	0	**49**	**525**	36	0	**36**	87	1	**88**	173	26	**199**	**323**	1814	92	**1906**
6:15 - 7:15	176	40	**216**	347	13	**360**	46	0	**46**	**622**	44	0	**44**	85	2	**87**	192	27	**219**	**350**	2052	97	**2149**
6:30 - 7:30	204	38	**242**	359	14	**373**	48	0	**48**	**663**	39	0	**39**	94	1	**95**	225	29	**254**	**388**	2146	99	**2245**
6:45 - 7:45	207	36	**243**	376	16	**392**	69	0	**69**	**704**	39	0	**39**	115	1	**116**	217	31	**248**	**403**	2144	105	**2249**
7:00 - 8:00	219	30	**249**	395	15	**410**	68	1	**69**	**728**	25	0	**25**	111	1	**112**	195	31	**226**	**363**	2118	101	**2219**
Period End	**943**	**184**	**1127**	**1766**	**68**	**1834**	**280**	**1**	**281**	**3242**	**183**	**0**	**183**	**492**	**6**	**498**	**1002**	**144**	**1146**	**1827**	**10274**	**494**	**10768**
15:00 - 16:00	200	29	**229**	691	4	**695**	69	0	**69**	**993**	32	1	**33**	249	1	**250**	186	29	**215**	**498**	1985	68	**2053**
15:15 - 16:15	209	28	**237**	691	2	**693**	80	0	**80**	**1010**	31	2	**33**	252	0	**252**	189	32	**221**	**506**	2033	67	**2100**
15:30 - 16:30	221	31	**252**	669	1	**670**	84	0	**84**	**1006**	33	2	**35**	252	0	**252**	200	36	**236**	**523**	2077	72	**2149**
15:45 - 16:45	221	32	**253**	656	1	**657**	78	0	**78**	**988**	37	3	**40**	269	0	**269**	207	40	**247**	**556**	2110	79	**2189**
16:00 - 17:00	227	31	**258**	640	3	**643**	77	1	**78**	**979**	39	2	**41**	262	1	**263**	201	39	**240**	**544**	2107	78	**2185**
Period End	**1078**	**151**	**1229**	**3347**	**11**	**3358**	**388**	**1**	**389**	**4976**	**172**	**10**	**182**	**1284**	**2**	**1286**	**983**	**176**	**1159**	**2627**	**10312**	**364**	**10676**

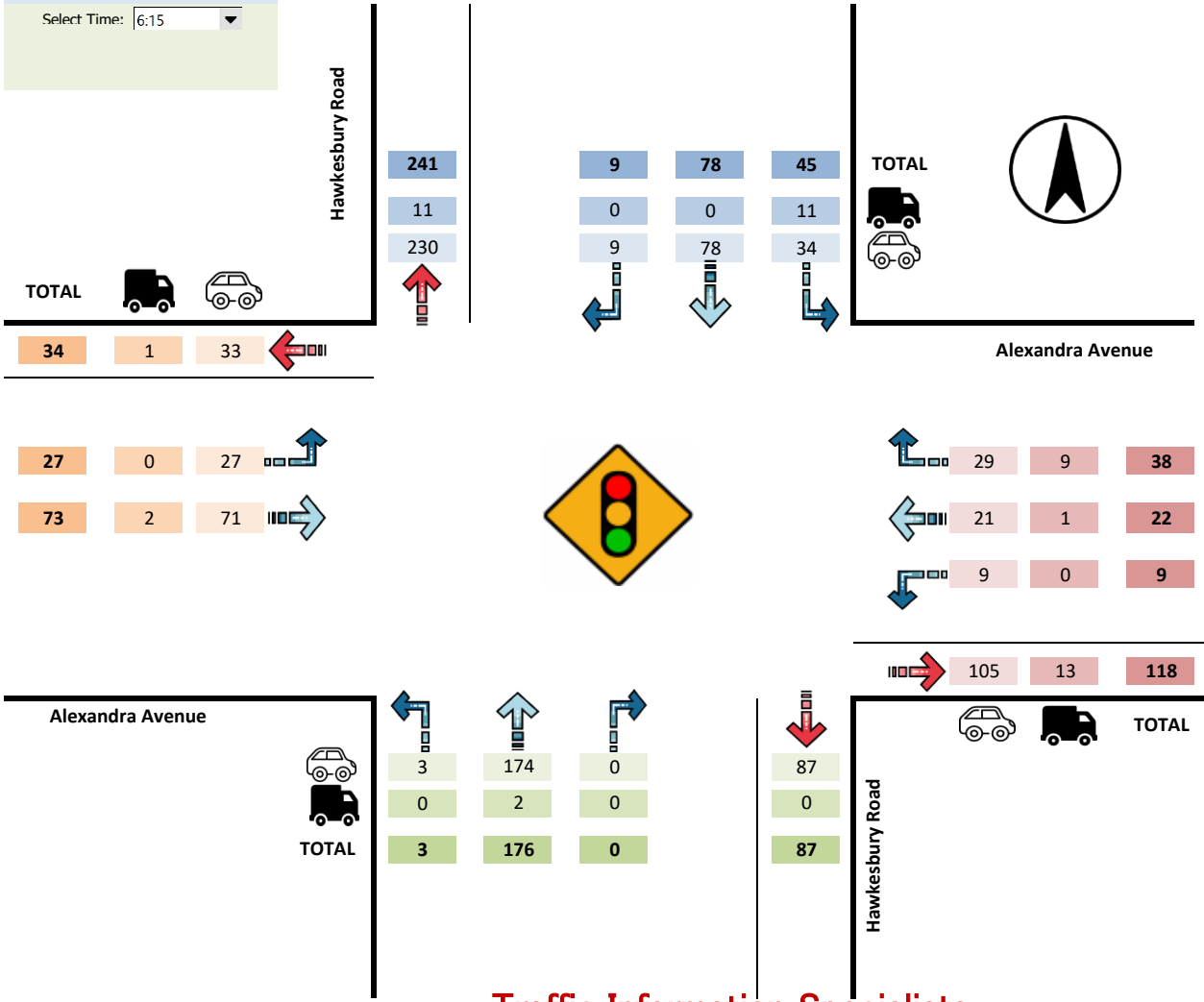
All Vehicles Time Per Hour	SOUTH *Hawkesbury Road*										WEST *Alexandra Avenue*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
6:00 - 7:00	17	0	**17**	659	12	**671**	1	0	**1**	**689**	91	1	**92**	275	2	**277**				**369**	1814	92	**1906**
6:15 - 7:15	18	0	**18**	762	12	**774**	0	0	**0**	**792**	98	0	**98**	284	3	**287**				**385**	2052	97	**2149**
6:30 - 7:30	20	0	**20**	785	16	**801**	1	0	**1**	**822**	89	0	**89**	282	1	**283**				**372**	2146	99	**2245**
6:45 - 7:45	18	0	**18**	737	20	**757**	1	0	**1**	**776**	71	0	**71**	294	1	**295**				**366**	2144	105	**2249**
7:00 - 8:00	20	0	**20**	730	21	**751**	1	0	**1**	**772**	63	0	**63**	291	2	**293**				**356**	2118	101	**2219**
Period End	**93**	**0**	**93**	**3673**	**81**	**3754**	**4**	**0**	**4**	**3851**	**412**	**1**	**413**	**1426**	**9**	**1435**				**1848**	**10274**	**494**	**10768**
15:00 - 16:00	42	0	**42**	310	2	**312**	0	0	**0**	**354**	43	0	**43**	163	2	**165**				**208**	1985	68	**2053**
15:15 - 16:15	40	0	**40**	306	1	**307**	0	0	**0**	**347**	59	0	**59**	176	2	**178**				**237**	2033	67	**2100**
15:30 - 16:30	41	0	**41**	322	1	**323**	0	0	**0**	**364**	60	0	**60**	195	1	**196**				**256**	2077	72	**2149**
15:45 - 16:45	36	0	**36**	347	2	**349**	0	0	**0**	**385**	62	0	**62**	197	1	**198**				**260**	2110	79	**2189**
16:00 - 17:00	32	0	**32**	355	1	**356**	0	0	**0**	**388**	72	0	**72**	202	0	**202**				**274**	2107	78	**2185**
Period End	**191**	**0**	**191**	**1640**	**7**	**1647**	**0**	**0**	**0**	**1838**	**296**	**0**	**296**	**933**	**6**	**939**				**1235**	**10312**	**364**	**10676**

Location	Hawkesbury Road	Duration	0700 - 0900
	Alexandra Avenue		1600 - 1800
	Hawkesbury Road		-
	Alexandra Avenue	Day/Date	Thursday, September 27, 2018
Suburb	WESTMEAD	Weather	-

DATA SELECTION

Select Time: 6:15

TIME RANGE		
6:15	-	6:30
PEAK		
6:45	-	7:45



Traffic Information Specialists

ABN: 42 613 389 923

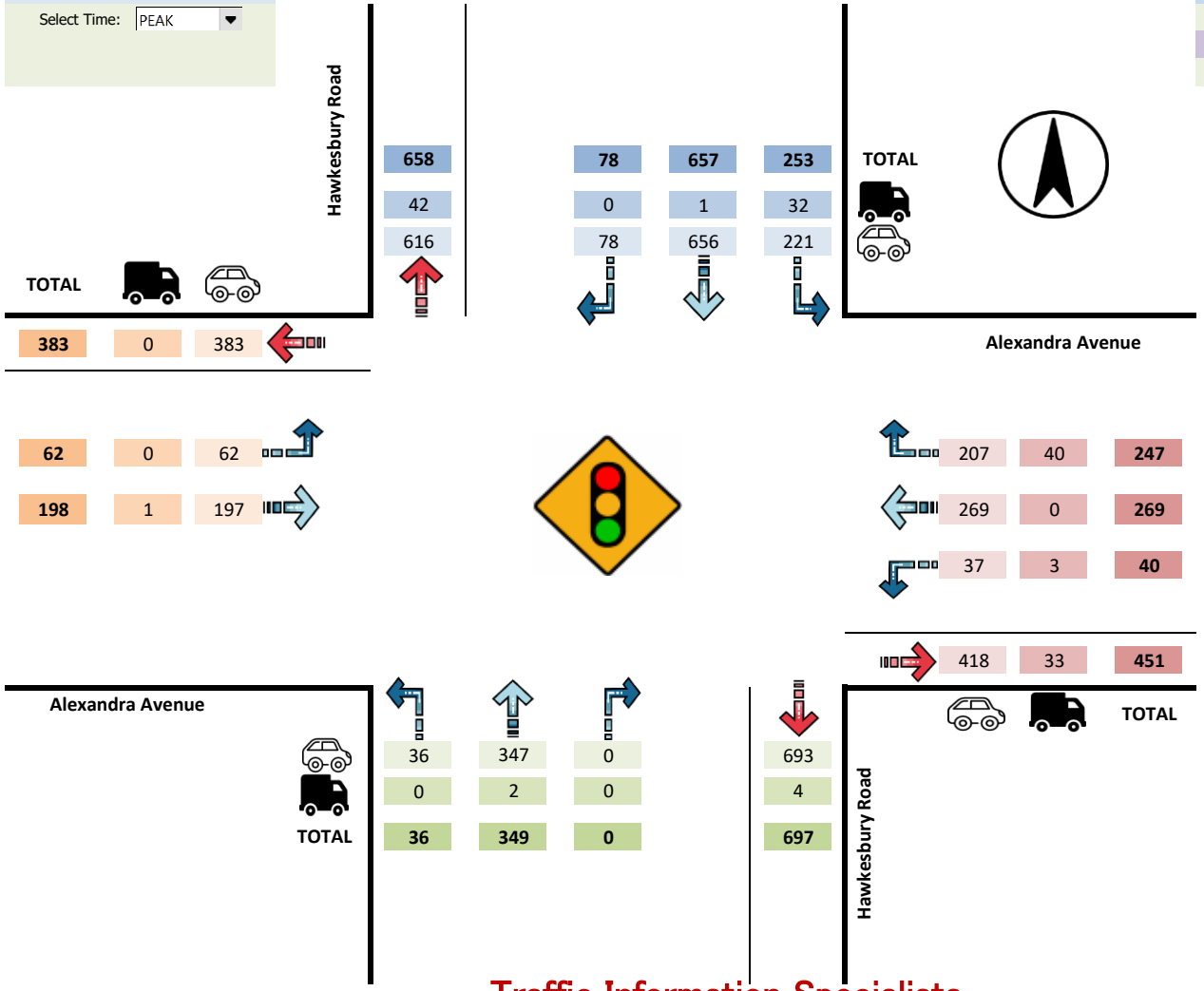
Email info@trafficinfospecialist.com.au

Location	Hawkesbury Road	Duration	0700 - 0900
	Alexandra Avenue		1600 - 1800
	Hawkesbury Road		-
	Alexandra Avenue	Day/Date	Thursday, September 27, 2018
Suburb	WESTMEAD	Weather	-

DATA SELECTION

Select Time: PEAK

TIME RANGE		
PEAK	-	PM
PEAK		
15:45	-	16:45



Traffic Information Specialists

ABN: 42 613 389 923

Email info@trafficinfospecialist.com.au

Location	Hawkesbury Road	**Duration**	0700 - 0900
	Railway Parade		1600 - 1800
	Hawkesbury Road		-
	-	**Day/Date**	Thursday, September 27, 2018
Suburb	WESTMEAD	**Weather**	-

All Vehicles Time Per 15 Mins	NORTH *Hawkesbury Road*										EAST *Railway Parade*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 7:15	11	0	**11**	63	9	**72**				**83**	21	0	**21**				4	0	**4**	**25**	247	18	**265**
7:15 - 7:30	16	0	**16**	91	11	**102**				**118**	30	0	**30**				6	0	**6**	**36**	373	22	**395**
7:30 - 7:45	19	0	**19**	98	12	**110**				**129**	35	0	**35**				11	0	**11**	**46**	425	20	**445**
7:45 - 8:00	16	0	**16**	89	18	**107**				**123**	48	0	**48**				7	0	**7**	**55**	443	29	**472**
8:00 - 8:15	16	0	**16**	142	12	**154**				**170**	36	0	**36**				6	0	**6**	**42**	477	21	**498**
8:15 - 8:30	23	0	**23**	113	10	**123**				**146**	50	0	**50**				6	0	**6**	**56**	469	27	**496**
8:30 - 8:45	15	2	**17**	120	12	**132**				**149**	54	0	**54**				7	0	**7**	**61**	384	28	**412**
8:45 - 9:00	10	0	**10**	113	11	**124**				**134**	54	1	**55**				2	0	**2**	**57**	425	24	**449**
Period End	**126**	**2**	**128**	**829**	**95**	**924**				**1052**	**328**	**1**	**329**				**49**	**0**	**49**	**378**	**3243**	**189**	**3432**
16:00 - 16:15	12	0	**12**	165	11	**176**				**188**	56	0	**56**				7	0	**7**	**63**	367	18	**385**
16:15 - 16:30	26	0	**26**	186	7	**193**				**219**	50	0	**50**				8	0	**8**	**58**	409	14	**423**
16:30 - 16:45	15	0	**15**	189	8	**197**				**212**	72	0	**72**				4	0	**4**	**76**	414	15	**429**
16:45 - 17:00	8	0	**8**	184	7	**191**				**199**	58	0	**58**				6	0	**6**	**64**	395	17	**412**
17:00 - 17:15	5	0	**5**	165	8	**173**				**178**	76	0	**76**				10	0	**10**	**86**	398	17	**415**
17:15 - 17:30	20	0	**20**	182	9	**191**				**211**	48	0	**48**				8	0	**8**	**56**	425	20	**445**
17:30 - 17:45	14	0	**14**	184	9	**193**				**207**	58	0	**58**				6	0	**6**	**64**	430	21	**451**
17:45 - 18:00	15	0	**15**	180	9	**189**				**204**	51	0	**51**				10	0	**10**	**61**	407	17	**424**
Period End	**115**	**0**	**115**	**1435**	**68**	**1503**				**1618**	**469**	**0**	**469**				**59**	**0**	**59**	**528**	**2055**	**92**	**3384**

All Vehicles Time Per 15 Mins	SOUTH *Hawkesbury Road*										WEST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 7:15				93	8	**101**	55	1	**56**	**157**											247	18	**265**
7:15 - 7:30				166	11	**177**	64	0	**64**	**241**											373	22	**395**
7:30 - 7:45				208	7	**215**	54	1	**55**	**270**											425	20	**445**
7:45 - 8:00				200	11	**211**	83	0	**83**	**294**											443	29	**472**
8:00 - 8:15				220	8	**228**	57	1	**58**	**286**											477	21	**498**
8:15 - 8:30				213	17	**230**	64	0	**64**	**294**											469	27	**496**
8:30 - 8:45				133	14	**147**	55	0	**55**	**202**											384	28	**412**
8:45 - 9:00				150	12	**162**	96	0	**96**	**258**											425	24	**449**
Period End				**1383**	**88**	**1471**	**528**	**3**	**531**	**2002**											**3243**	**189**	**3432**
16:00 - 16:15				91	7	**98**	36	0	**36**	**134**											367	18	**385**
16:15 - 16:30				106	7	**113**	33	0	**33**	**146**											409	14	**423**
16:30 - 16:45				98	7	**105**	36	0	**36**	**141**											414	15	**429**
16:45 - 17:00				98	10	**108**	41	0	**41**	**149**											395	17	**412**
17:00 - 17:15				87	9	**96**	55	0	**55**	**151**											398	17	**415**
17:15 - 17:30				120	11	**131**	47	0	**47**	**178**											425	20	**445**
17:30 - 17:45				110	10	**120**	58	2	**60**	**180**											430	21	**451**
17:45 - 18:00				107	8	**115**	44	0	**44**	**159**											407	17	**424**
Period End				**817**	**69**	**886**	**350**	**2**	**352**	**1238**											**2055**	**92**	**3384**

Location	Hawkesbury Road		Duration	0700 - 0900	
	Railway Parade			1600 - 1800	
	Hawkesbury Road			-	
	-		Day/Date	Thursday, September 27, 2018	
Suburb	WESTMEAD		Weather	-	

All Vehicles Time Per Hour	NORTH Hawkesbury Road										EAST Railway Parade										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	62	0	**62**	341	50	**391**				**453**	134	0	**134**				28	0	**28**	**162**	1488	89	**1577**
7:15 - 8:15	67	0	**67**	420	53	**473**				**540**	149	0	**149**				30	0	**30**	**179**	1718	92	**1810**
7:30 - 8:30	74	0	**74**	442	52	**494**				**568**	169	0	**169**				30	0	**30**	**199**	1814	97	**1911**
7:45 - 8:45	70	2	**72**	464	52	**516**				**588**	188	0	**188**				26	0	**26**	**214**	1773	105	**1878**
8:00 - 9:00	64	2	**66**	488	45	**533**				**599**	194	1	**195**				21	0	**21**	**216**	1755	100	**1855**
Period End	**337**	**4**	**341**	**2155**	**252**	**2407**				**2748**	**834**	**1**	**835**				**135**	**0**	**135**	**970**	**8548**	**483**	**9031**
16:00 - 17:00	61	0	**61**	724	33	**757**				**818**	236	0	**236**				25	0	**25**	**261**	1585	64	**1649**
16:15 - 17:15	54	0	**54**	724	30	**754**				**808**	256	0	**256**				28	0	**28**	**284**	1616	63	**1679**
16:30 - 17:30	48	0	**48**	720	32	**752**				**800**	254	0	**254**				28	0	**28**	**282**	1632	69	**1701**
16:45 - 17:45	47	0	**47**	715	33	**748**				**795**	240	0	**240**				30	0	**30**	**270**	1648	75	**1723**
17:00 - 18:00	54	0	**54**	711	35	**746**				**800**	233	0	**233**				34	0	**34**	**267**	1660	75	**1735**
Period End	**264**	**0**	**264**	**3594**	**163**	**3757**				**4021**	**1219**	**0**	**1219**				**145**	**0**	**145**	**1364**	**8141**	**346**	**8487**

All Vehicles Time Per Hour	SOUTH Hawkesbury Road										WEST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00				667	37	**704**	256	2	**258**	**962**											1488	89	**1577**
7:15 - 8:15				794	37	**831**	258	2	**260**	**1091**											1718	92	**1810**
7:30 - 8:30				841	43	**884**	258	2	**260**	**1144**											1814	97	**1911**
7:45 - 8:45				766	50	**816**	259	1	**260**	**1076**											1773	105	**1878**
8:00 - 9:00				716	51	**767**	272	1	**273**	**1040**											1755	100	**1855**
Period End				**3784**	**218**	**4002**	**1303**	**8**	**1311**	**5313**											**8548**	**483**	**9031**
16:00 - 17:00				393	31	**424**	146	0	**146**	**570**											1585	64	**1649**
16:15 - 17:15				389	33	**422**	165	0	**165**	**587**											1616	63	**1679**
16:30 - 17:30				403	37	**440**	179	0	**179**	**619**											1632	69	**1701**
16:45 - 17:45				415	40	**455**	201	2	**203**	**658**											1648	75	**1723**
17:00 - 18:00				424	38	**462**	204	2	**206**	**668**											1660	75	**1735**
Period End				**2024**	**179**	**2203**	**895**	**4**	**899**	**3102**											**8141**	**346**	**8487**

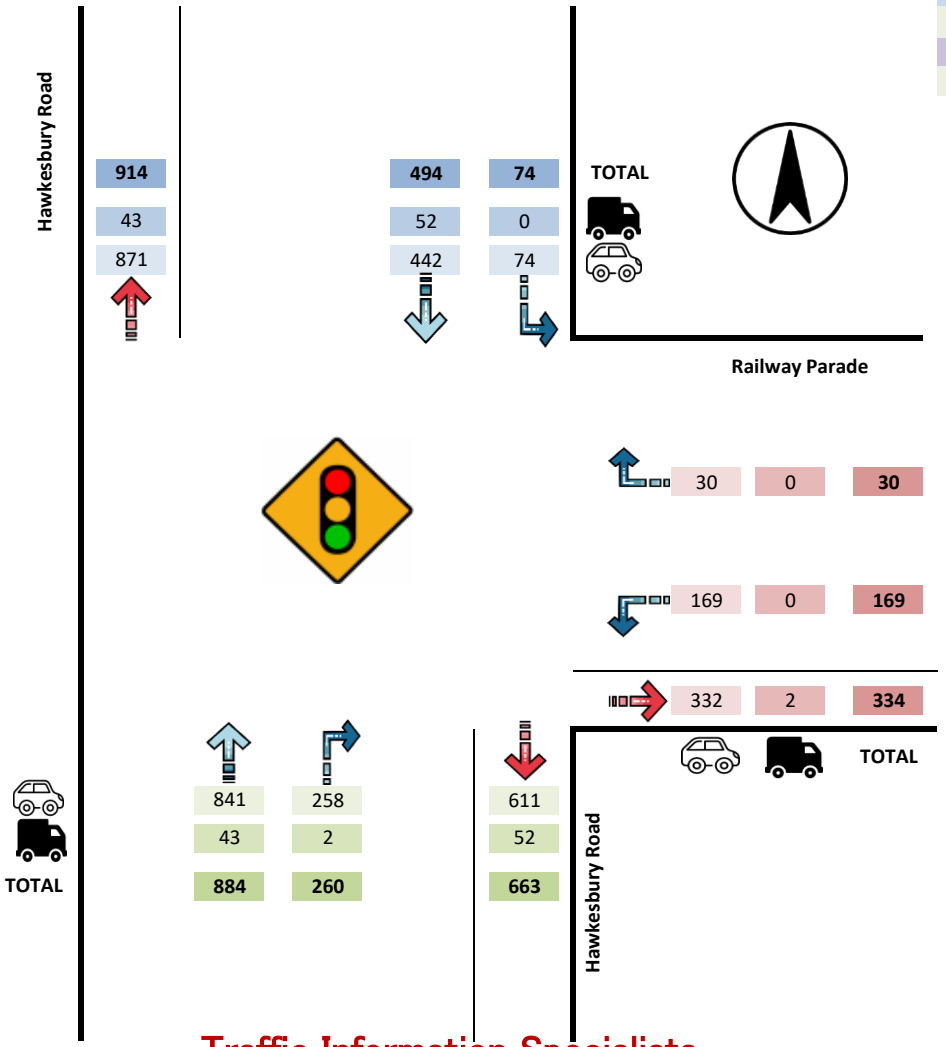
Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au

Location	Hawkesbury Road	Duration	0700 - 0900
	Railway Parade		1600 - 1800
	Hawkesbury Road		-
	-	Day/Date	Thursday, September 27, 2018
Suburb	WESTMEAD	Weather	-

DATA SELECTION

Select Time: PEAK

TIME RANGE		
PEAK	-	AM
PEAK		
7:30	-	8:30



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Traffic Information Specialists

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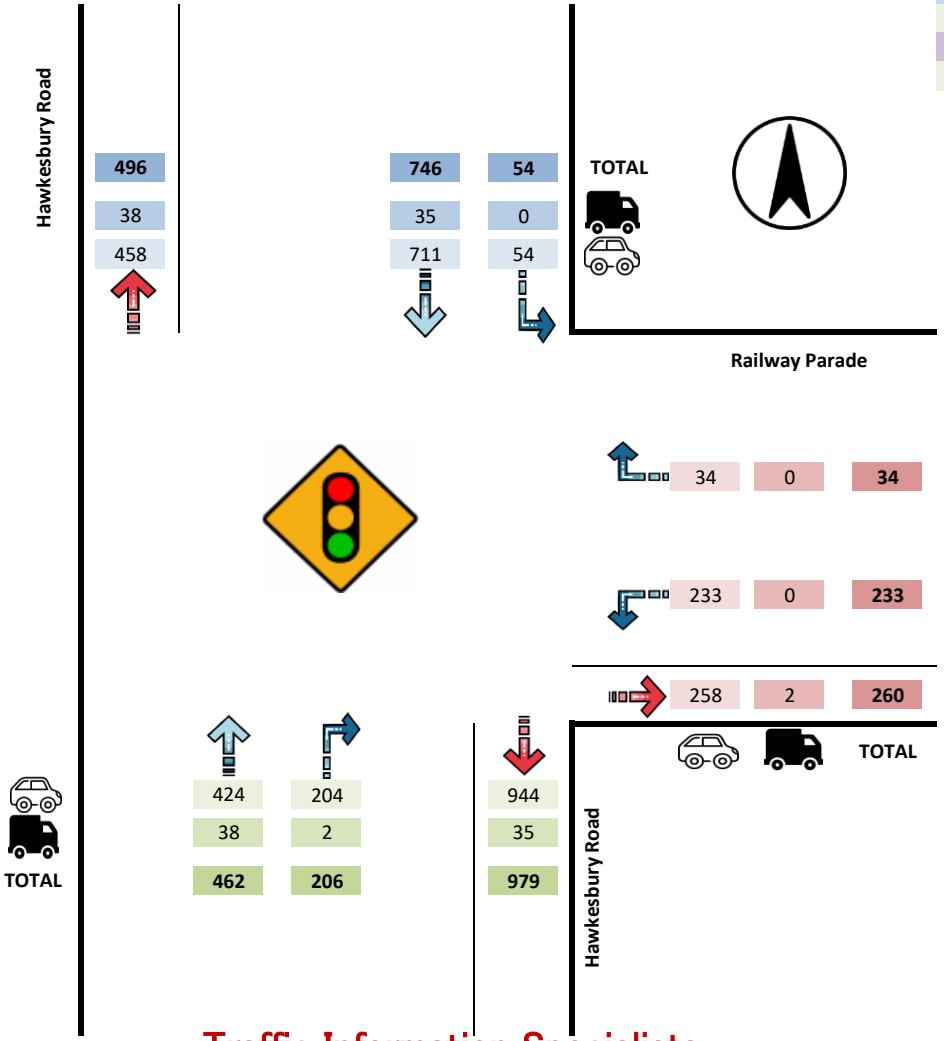
Location	**Hawkesbury Road**	**Duration**	**0700 - 0900**
	Railway Parade		**1600 - 1800**
	Hawkesbury Road		**-**
	-	**Day/Date**	**Thursday, September 27, 2018**
Suburb	**WESTMEAD**	**Weather**	**-**

DATA SELECTION

Select Time: PEAK

TIME RANGE		
PEAK	-	PM
PEAK		
17:00	-	18:00



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Traffic Information Specialists

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Location	Hawkesbury Road	**Duration**	0700 - 0900
	Queens Road		1600 - 1800
	Hawkesbury Road		-
	-	**Day/Date**	Thursday, September 27, 2018
Suburb	WESTMEAD	**Weather**	-

All Vehicles Time Per 15 Mins	NORTH *Hawkesbury Road*										EAST *Queens Road*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 7:15	2	0	**2**	37	3	**40**				**42**	20	0	**20**							**20**	140	7	**147**
7:15 - 7:30	1	0	**1**	53	2	**55**				**56**	25	0	**25**							**25**	176	6	**182**
7:30 - 7:45	3	0	**3**	55	5	**60**				**63**	33	0	**33**							**33**	209	8	**217**
7:45 - 8:00	2	0	**2**	70	2	**72**				**74**	38	2	**40**							**40**	230	6	**236**
8:00 - 8:15	2	0	**2**	54	3	**57**				**59**	35	0	**35**							**35**	202	5	**207**
8:15 - 8:30	2	0	**2**	58	2	**60**				**62**	31	1	**32**							**32**	217	5	**222**
8:30 - 8:45	7	0	**7**	59	5	**64**				**71**	33	1	**34**							**34**	212	10	**222**
8:45 - 9:00	5	1	**6**	35	1	**36**				**42**	37	0	**37**							**37**	199	4	**203**
Period End	**24**	**1**	**25**	**421**	**23**	**444**				**469**	**252**	**4**	**256**							**256**	**1585**	**51**	**1636**
16:00 - 16:15	4	0	**4**	109	4	**113**				**117**	42	0	**42**							**42**	234	6	**240**
16:15 - 16:30	4	0	**4**	119	2	**121**				**125**	44	1	**45**							**45**	256	5	**261**
16:30 - 16:45	2	0	**2**	101	2	**103**				**105**	54	0	**54**							**54**	231	6	**237**
16:45 - 17:00	3	0	**3**	112	3	**115**				**118**	37	0	**37**							**37**	205	6	**211**
17:00 - 17:15	2	0	**2**	108	1	**109**				**111**	39	0	**39**							**39**	222	2	**224**
17:15 - 17:30	2	0	**2**	101	2	**103**				**105**	41	0	**41**							**41**	239	4	**243**
17:30 - 17:45	2	0	**2**	91	2	**93**				**95**	37	0	**37**							**37**	212	4	**216**
17:45 - 18:00	3	0	**3**	87	3	**90**				**93**	31	2	**33**							**33**	208	6	**214**
Period End	**22**	**0**	**22**	**828**	**19**	**847**				**869**	**325**	**3**	**328**							**328**	**1086**	**22**	**1846**

All Vehicles Time Per 15 Mins	SOUTH *Hawkesbury Road*										WEST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 7:15				71	3	**74**	10	1	**11**	**85**											140	7	**147**
7:15 - 7:30				84	4	**88**	13	0	**13**	**101**											176	6	**182**
7:30 - 7:45				102	3	**105**	16	0	**16**	**121**											209	8	**217**
7:45 - 8:00				108	1	**109**	12	1	**13**	**122**											230	6	**236**
8:00 - 8:15				101	2	**103**	10	0	**10**	**113**											202	5	**207**
8:15 - 8:30				113	2	**115**	13	0	**13**	**128**											217	5	**222**
8:30 - 8:45				99	3	**102**	14	1	**15**	**117**											212	10	**222**
8:45 - 9:00				96	1	**97**	26	1	**27**	**124**											199	4	**203**
Period End				**774**	**19**	**793**	**114**	**4**	**118**	**911**											**1585**	**51**	**1636**
16:00 - 16:15				64	2	**66**	15	0	**15**	**81**											234	6	**240**
16:15 - 16:30				77	2	**79**	12	0	**12**	**91**											256	5	**261**
16:30 - 16:45				56	2	**58**	18	2	**20**	**78**											231	6	**237**
16:45 - 17:00				48	2	**50**	5	1	**6**	**56**											205	6	**211**
17:00 - 17:15				59	1	**60**	14	0	**14**	**74**											222	2	**224**
17:15 - 17:30				78	2	**80**	17	0	**17**	**97**											239	4	**243**
17:30 - 17:45				66	2	**68**	16	0	**16**	**84**											212	4	**216**
17:45 - 18:00				69	1	**70**	18	0	**18**	**88**											208	6	**214**
Period End				**517**	**14**	**531**	**115**	**3**	**118**	**649**											**1086**	**22**	**1846**

Traffic Information Specialists

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Location	Hawkesbury Road		**Duration**	0700 - 0900	
	Queens Road			1600 - 1800	
	Hawkesbury Road			-	
	-		**Day/Date**	Thursday, September 27, 2018	
Suburb	WESTMEAD		**Weather**	-	

All Vehicles Time Per Hour	NORTH *Hawkesbury Road*										EAST *Queens Road*										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00	8	0	**8**	215	12	**227**				**235**	116	2	**118**							**118**	755	27	**782**
7:15 - 8:15	8	0	**8**	232	12	**244**				**252**	131	2	**133**							**133**	817	25	**842**
7:30 - 8:30	9	0	**9**	237	12	**249**				**258**	137	3	**140**							**140**	858	24	**882**
7:45 - 8:45	13	0	**13**	241	12	**253**				**266**	137	4	**141**							**141**	861	26	**887**
8:00 - 9:00	16	1	**17**	206	11	**217**				**234**	136	2	**138**							**138**	830	24	**854**
Period End	**54**	**1**	**55**	**1131**	**59**	**1190**				**1245**	**657**	**13**	**670**							**670**	**4121**	**126**	**4247**
16:00 - 17:00	13	0	**13**	441	11	**452**				**465**	177	1	**178**							**178**	926	23	**949**
16:15 - 17:15	11	0	**11**	440	8	**448**				**459**	174	1	**175**							**175**	914	19	**933**
16:30 - 17:30	9	0	**9**	422	8	**430**				**439**	171	0	**171**							**171**	897	18	**915**
16:45 - 17:45	9	0	**9**	412	8	**420**				**429**	154	0	**154**							**154**	878	16	**894**
17:00 - 18:00	9	0	**9**	387	8	**395**				**404**	148	2	**150**							**150**	881	16	**897**
Period End	**51**	**0**	**51**	**2102**	**43**	**2145**				**2196**	**824**	**4**	**828**							**828**	**4496**	**92**	**4588**

All Vehicles Time Per Hour	SOUTH *Hawkesbury Road*										WEST -										TOTAL		TOTAL
	L			T			R				L			T			R						
	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	LIGHT	HEAVY	Σ	TOTAL	LIGHT	HEAVY	
7:00 - 8:00				365	11	**376**	51	2	**53**	**429**											755	27	**782**
7:15 - 8:15				395	10	**405**	51	1	**52**	**457**											817	25	**842**
7:30 - 8:30				424	8	**432**	51	1	**52**	**484**											858	24	**882**
7:45 - 8:45				421	8	**429**	49	2	**51**	**480**											861	26	**887**
8:00 - 9:00				409	8	**417**	63	2	**65**	**482**											830	24	**854**
Period End				**2014**	**45**	**2059**	**265**	**8**	**273**	**2332**											**4121**	**126**	**4247**
16:00 - 17:00				245	8	**253**	50	3	**53**	**306**											926	23	**949**
16:15 - 17:15				240	7	**247**	49	3	**52**	**299**											914	19	**933**
16:30 - 17:30				241	7	**248**	54	3	**57**	**305**											897	18	**915**
16:45 - 17:45				251	7	**258**	52	1	**53**	**311**											878	16	**894**
17:00 - 18:00				272	6	**278**	65	0	**65**	**343**											881	16	**897**
Period End				**1249**	**35**	**1284**	**270**	**10**	**280**	**1564**											**4496**	**92**	**4588**

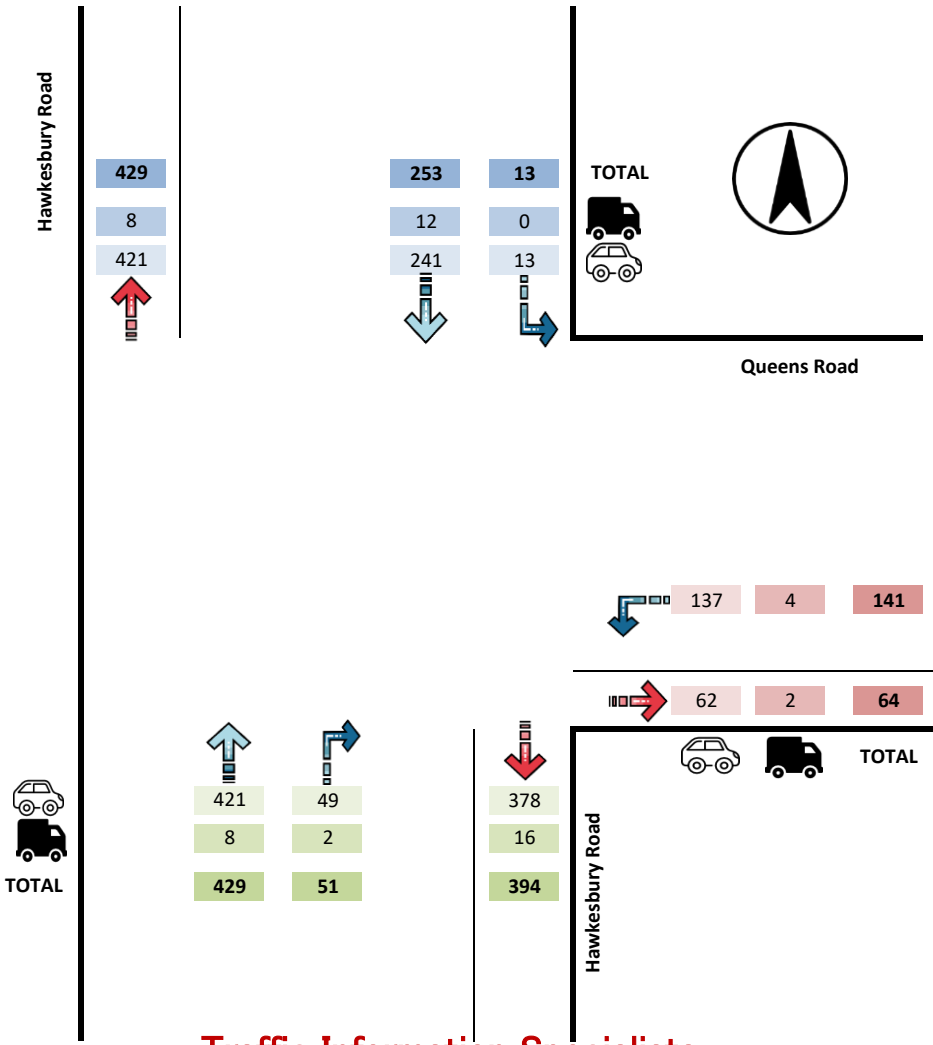
Traffic Information Specialists
ABN: 42 613 389 923
Email info@trafficinfospecialist.com.au

Location	Hawkesbury Road	Duration	0700 - 0900
	Queens Road		1600 - 1800
	Hawkesbury Road		-
	-	Day/Date	Thursday, September 27, 2018
Suburb	WESTMEAD	Weather	-

DATA SELECTION

Select Time: PEAK

TIME RANGE		
PEAK	-	AM
PEAK		
7:45	-	8:45



-

Traffic Information Specialists

ABN: 42 613 389 923

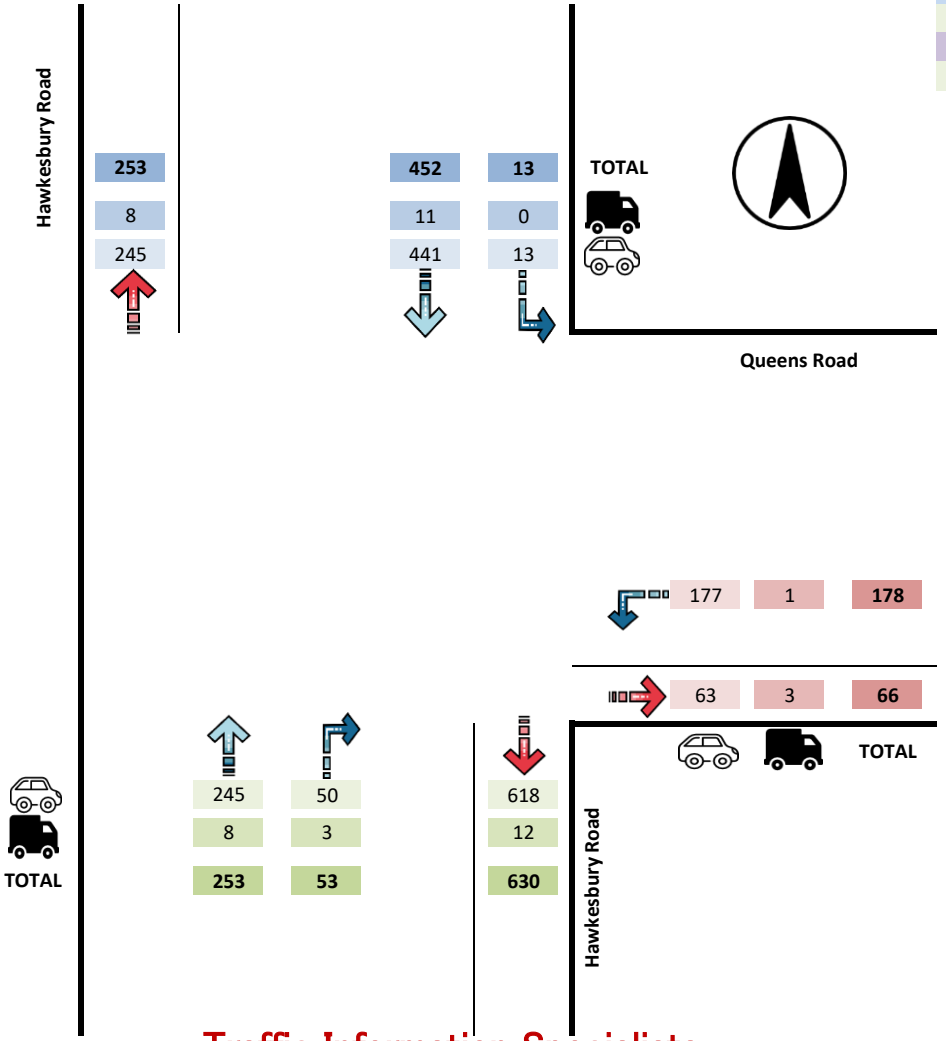
Email info@trafficinfospecialist.com.au

Location	**Hawkesbury Road**	**Duration**	**0700 - 0900**
	Queens Road		**1600 - 1800**
	Hawkesbury Road		**-**
	-	**Day/Date**	**Thursday, September 27, 2018**
Suburb	**WESTMEAD**	**Weather**	**-**

DATA SELECTION

Select Time: PEAK

TIME RANGE		
PEAK	-	PM
PEAK		
16:00	-	17:00



-

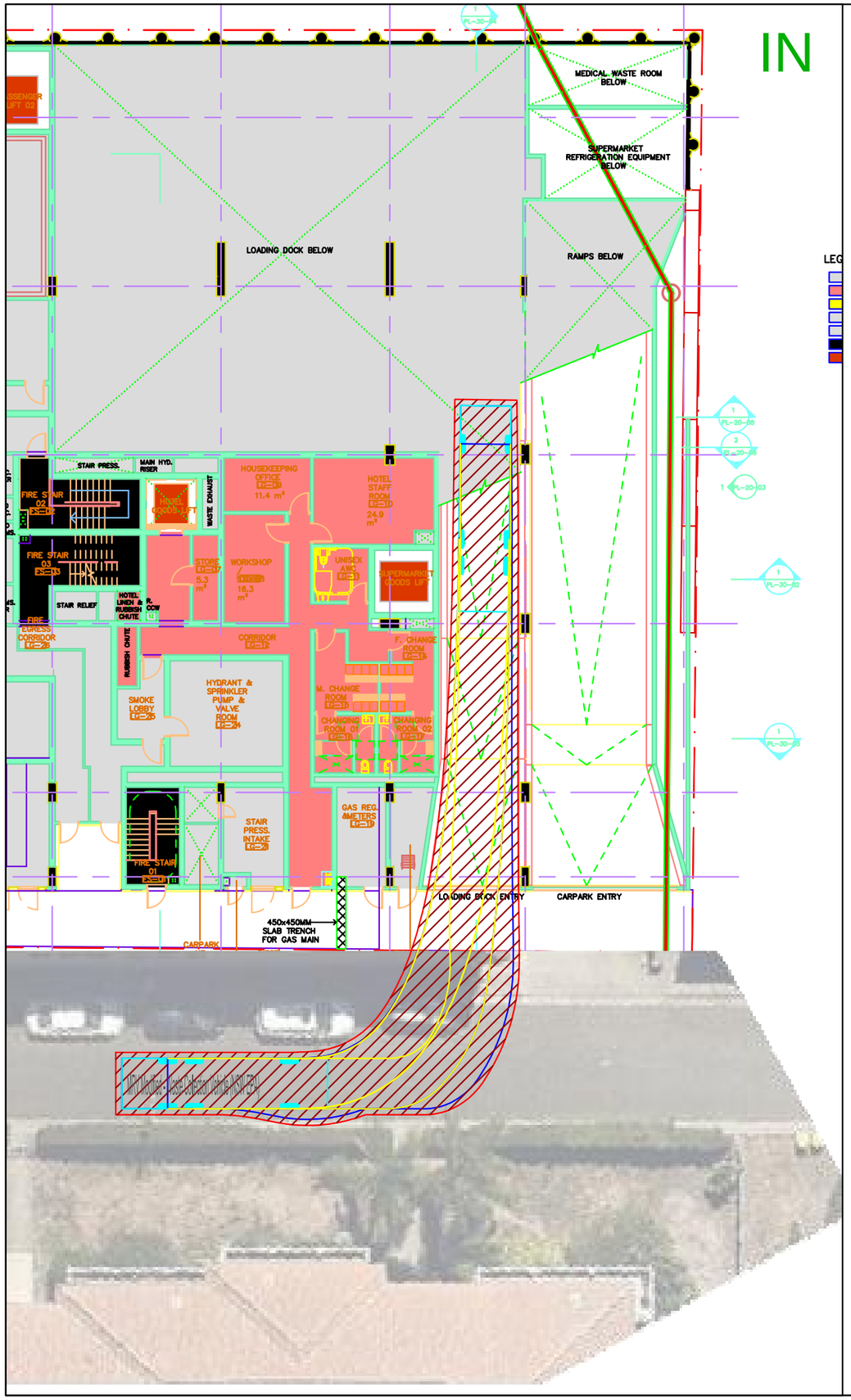
Traffic Information Specialists

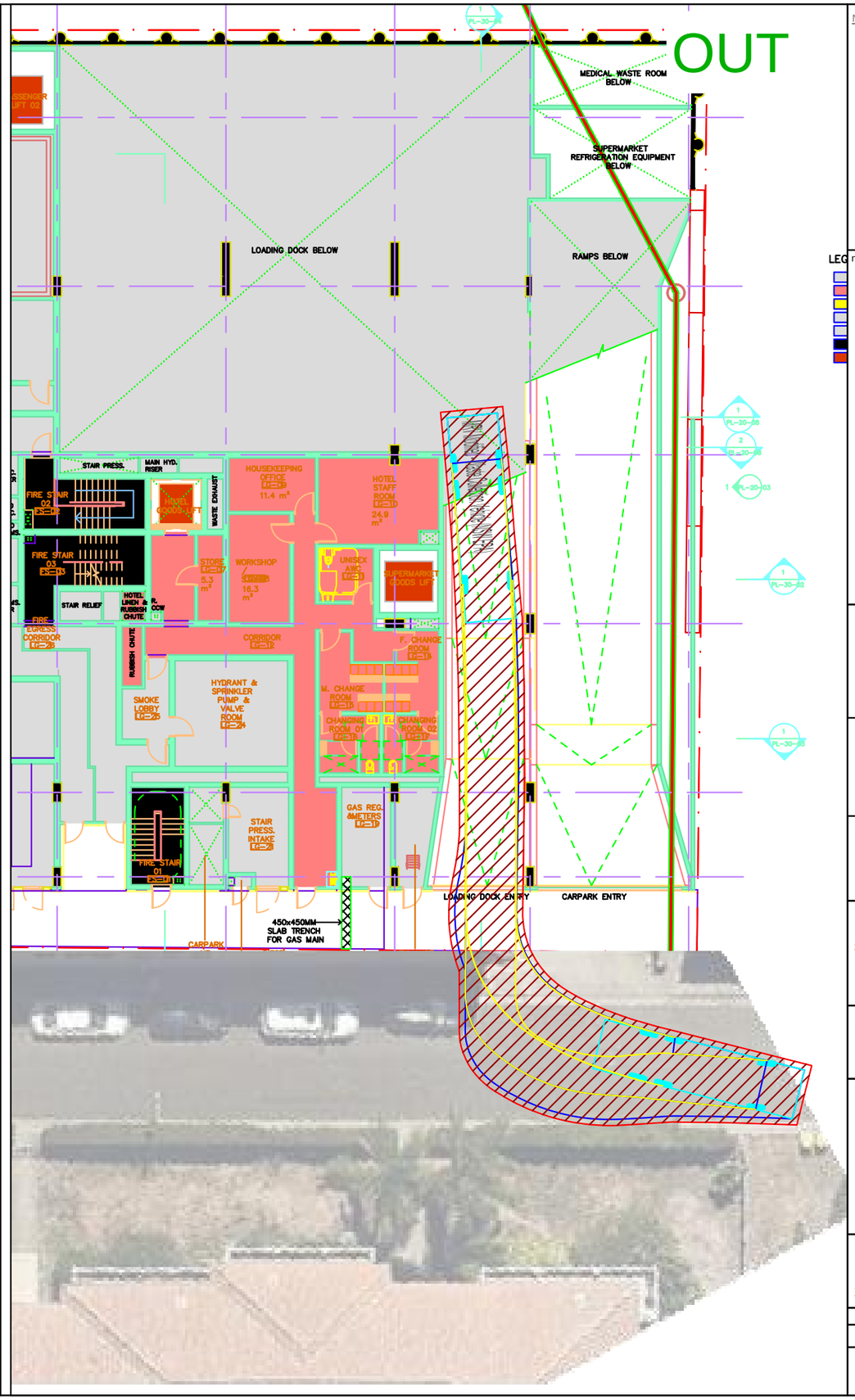
ABN: 42 613 389 923

Email info@trafficinfospecialist.com.au

APPENDIX E

Swept Path Analysis





Notes

This drawing is prepared for information purposes only. It is not to be used for construction.

TRAFFIX is responsible for vehicle swept path diagrams and/or drawing mark-ups only. Base drawing prepared by others.

Vehicle swept path diagrams prepared using computer generated turning path software and associated CAD drawing platforms. Vehicle data based upon relevant Australian Standards (*AS/NZS 2890.1-2004 Parking facilities - Off-street car parking*, and/or *AS 2890.2-2002 Parking facilities - Off-street commercial vehicle facilities*). These standards embody a degree of tolerance, however the vehicle characteristics in these standards represent a suitable design vehicle and do not account for all variations in vehicle dimensions / specifications and/or driver ability or behaviour.

no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:250 @ A3
0m 2 4 6 8

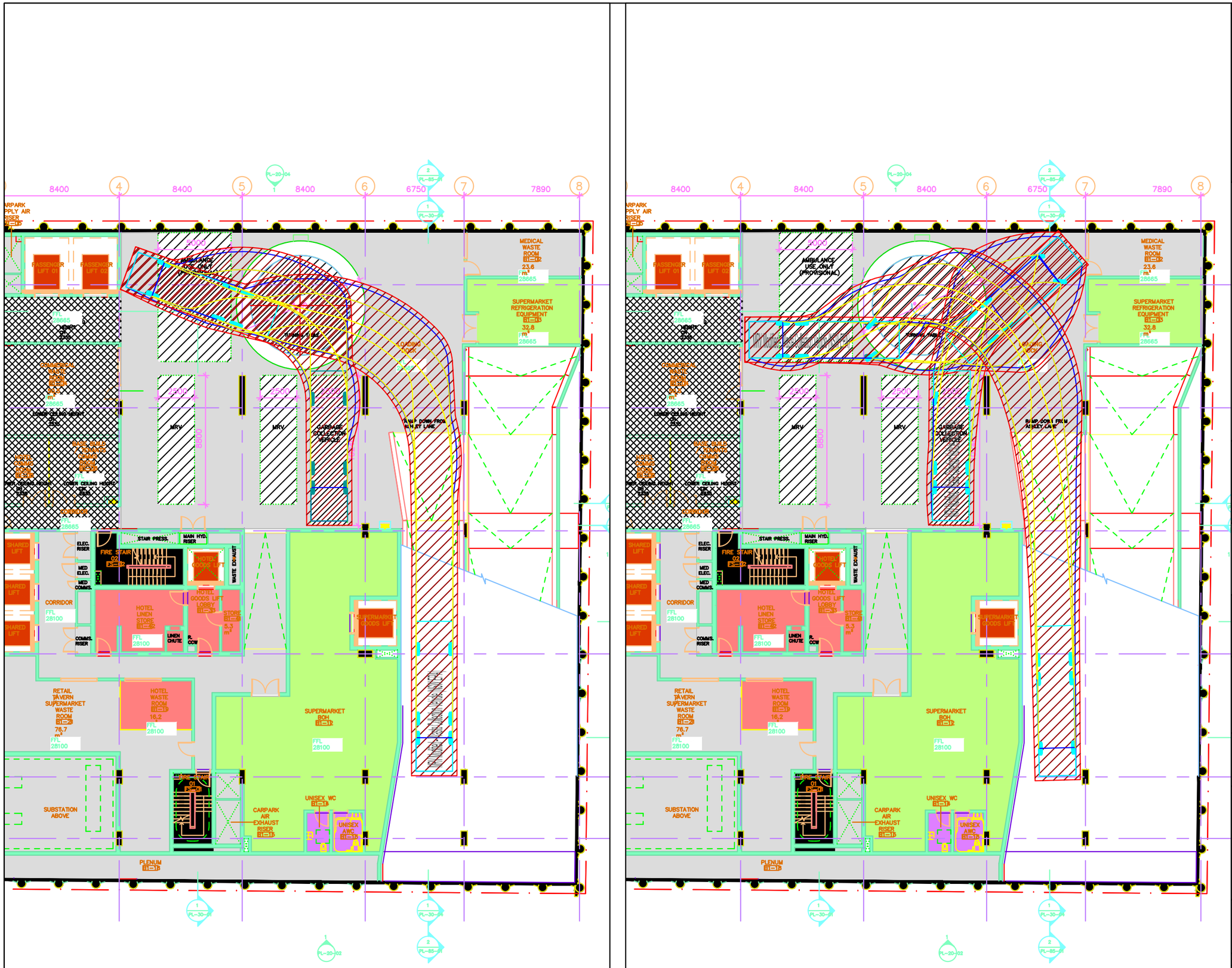
project
24-26 Railway Parade, Westmead

drawing prepared by
TRAFFIX
traffic and transport planners
Suite 2.08, 50 Holt Street
Surry Hills NSW 2010
PO Box 1124
Strawberry Hills NSW 2012
t: +61 2 8324 8700
f: +61 2 9380 4481
e: info@traffix.com.au
traffix
traffic & transport planners

drawing title
Swept Path Analysis
Ashley Lane - Loading Dock Access
10.24m Waste Collection Vehicle

drawn:	checked:	date:
SW	BL	11 Dec 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.01	-



Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:250 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by

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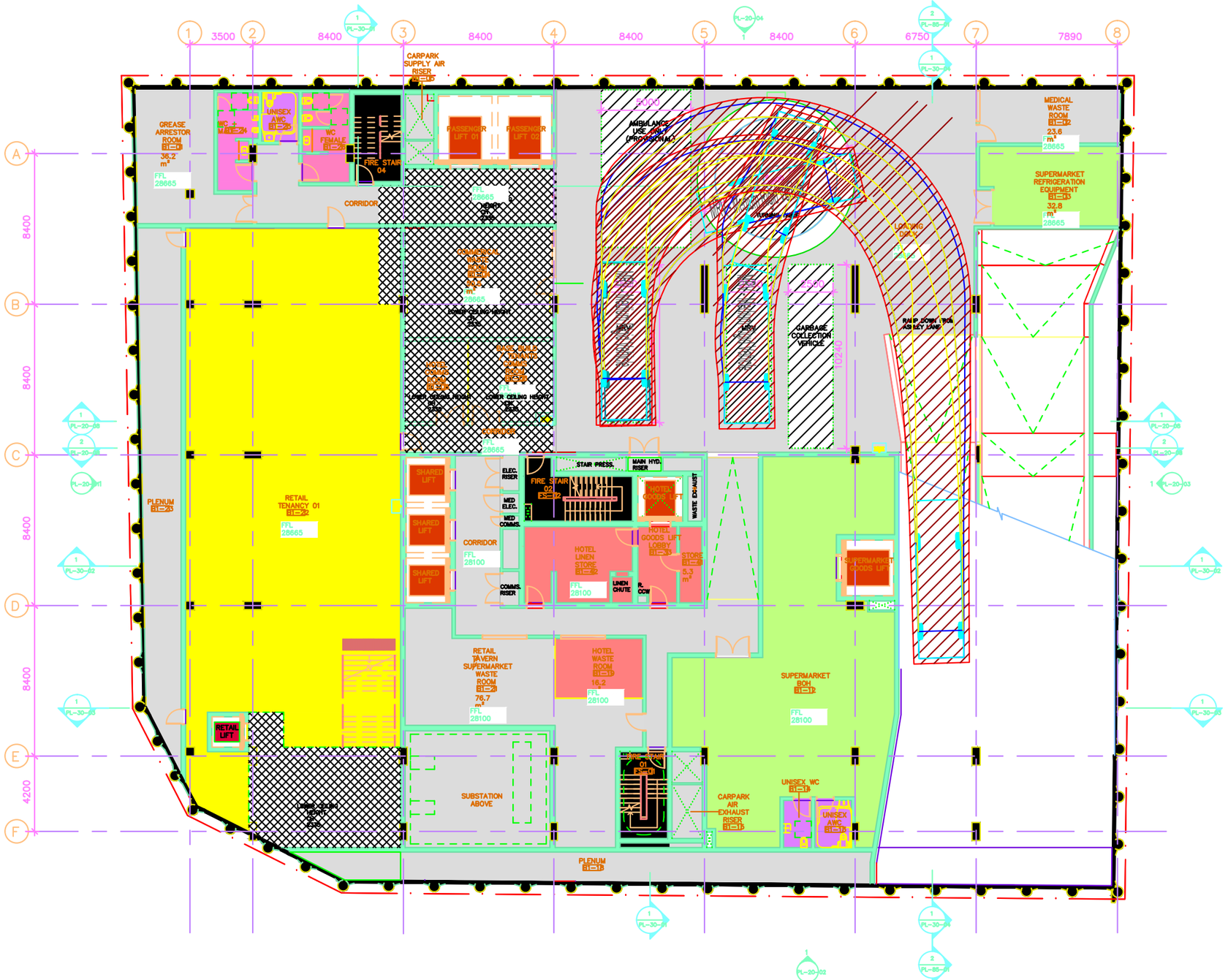
traffix
traffic & transport planners

drawing title
Swept Path Analysis
Loading Dock
10.24m Waste Collection Vehicle

drawn:	checked:	date:
SW	BL	11 Dec 18

16.443	-	TX.02	-
project no.	drawing phase.	drawing no.	rev



LEGEND

- BASEMENT CARPARK
- HOTEL – BOH &
- RETAIL –
- RETAIL – SUPERMARKET
- RISER
- SERVICES /
- VERTICAL CIRCULATION
- VERTICAL CIRCULATION – LIFT
- WC –
- WC –
- WC – MALE

Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:250 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by
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traffic and transport planners
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Strawberry Hills NSW 2012
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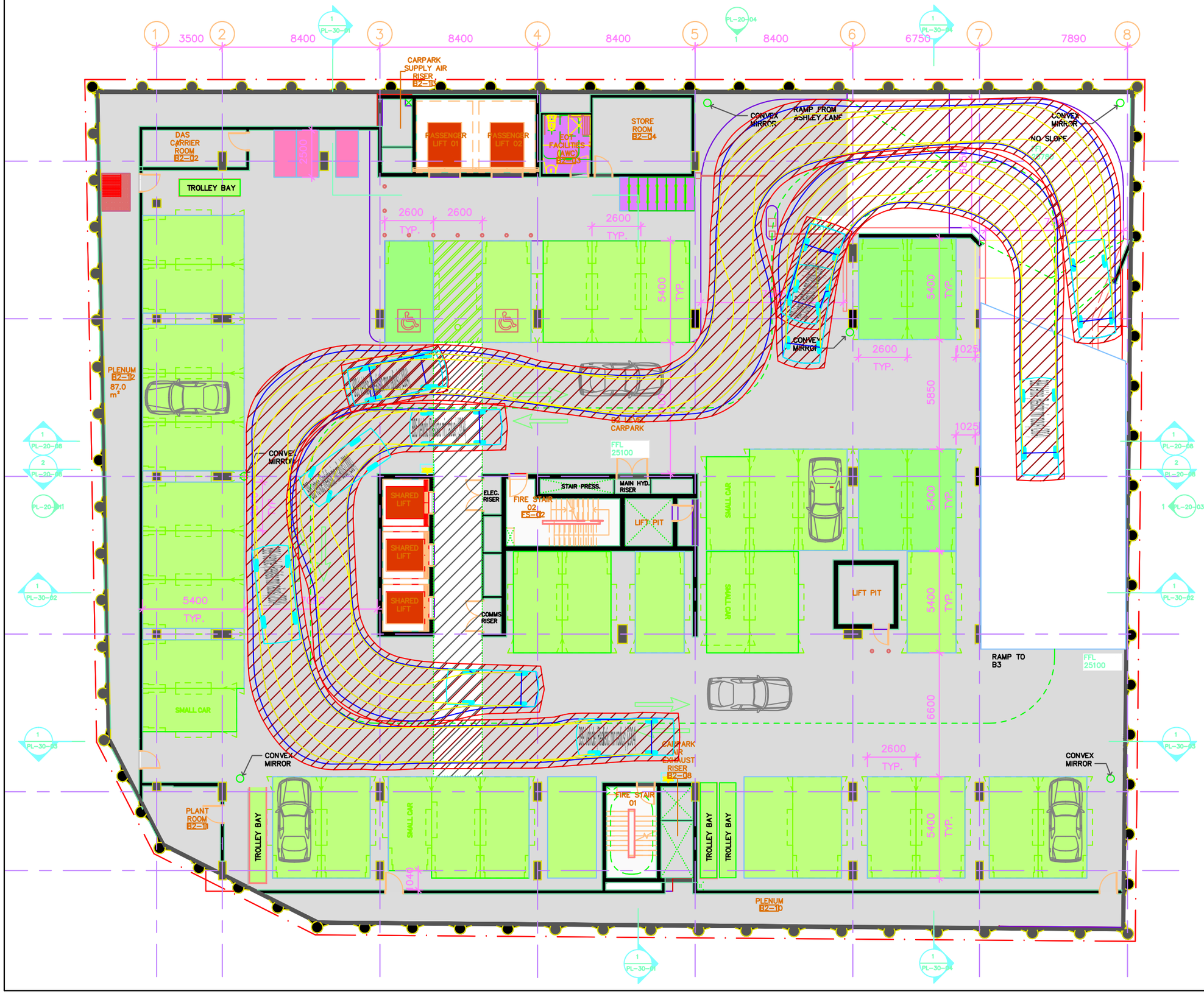
traffix
traffic & transport planners

drawing title
Swept Path Analysis
Loading Dock
8.8m Medium Rigid Vehicle

drawn:	checked:	date:
SW	BL	30 Oct 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.03	-



Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:200 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by
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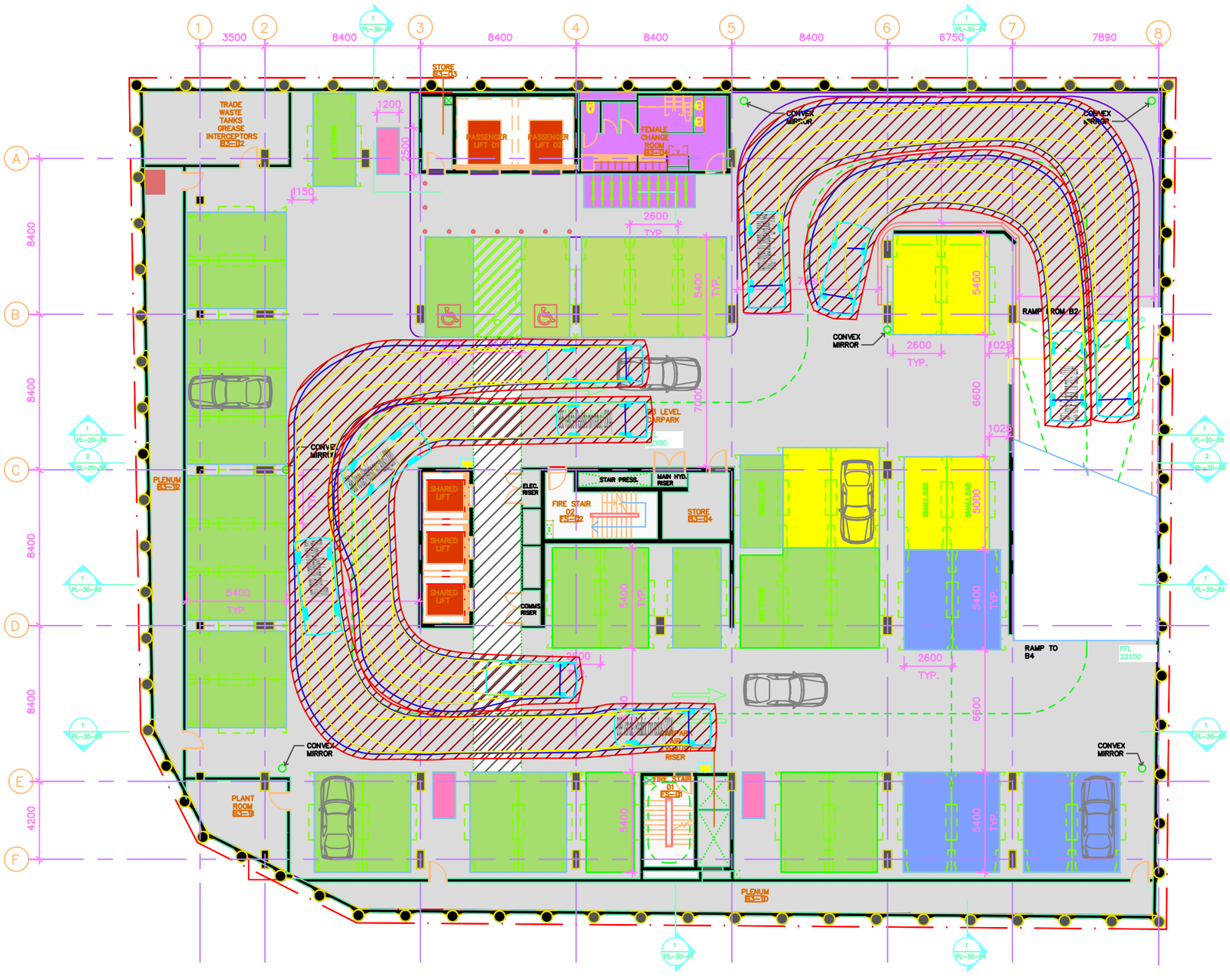
e: info@traffix.com.au
traffix
traffic & transport planners

drawing title
Swept Path Analysis
B2 Level

drawn:	checked:	date:
SW	BL	11 Dec 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.04	-



Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:200 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by

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Strawberry Hills NSW 2012
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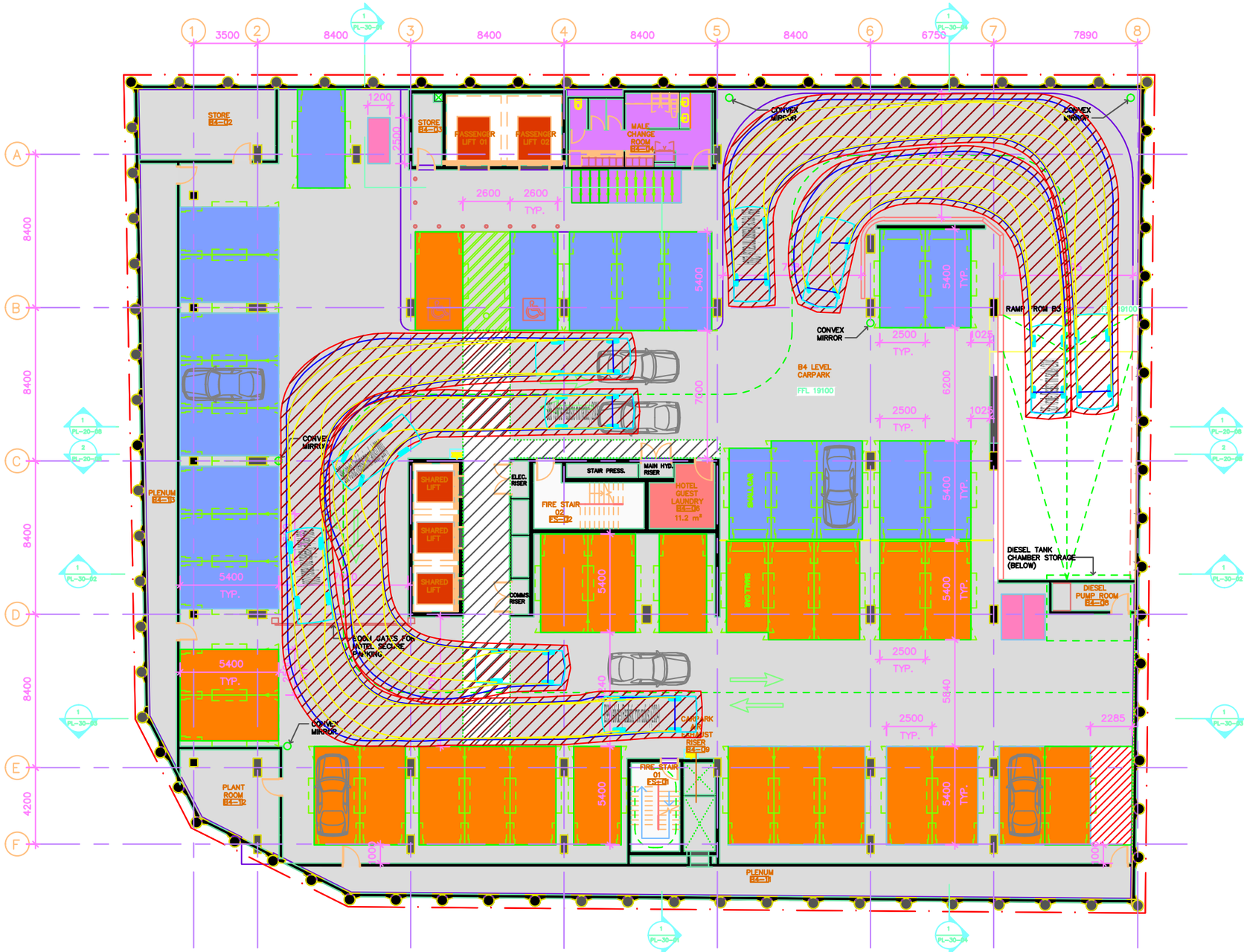
e: info@traffix.com.au

traffix
traffic & transport planners

drawing title
Swept Path Analysis
B3 Level

drawn:	checked:	date:
SW	BL	11 Dec 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.05	-



Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:200 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by

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traffix
traffic & transport planners

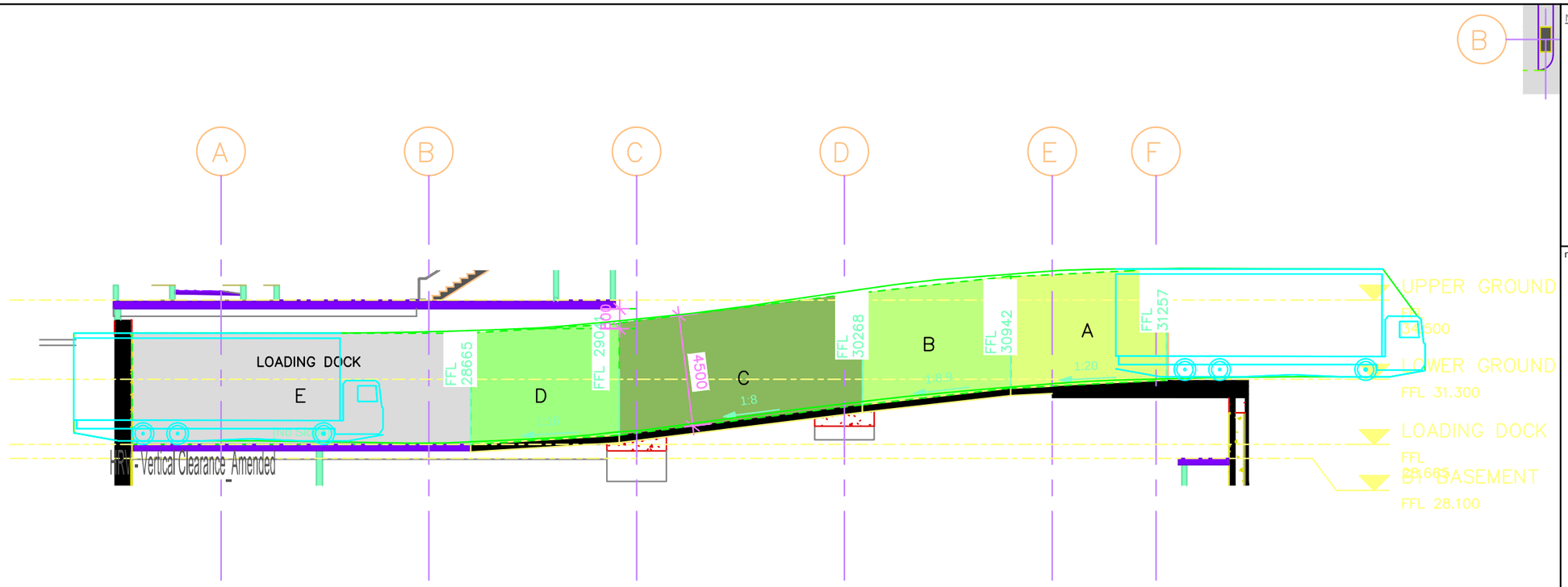
drawing title
Swept Path Analysis
B4 Level

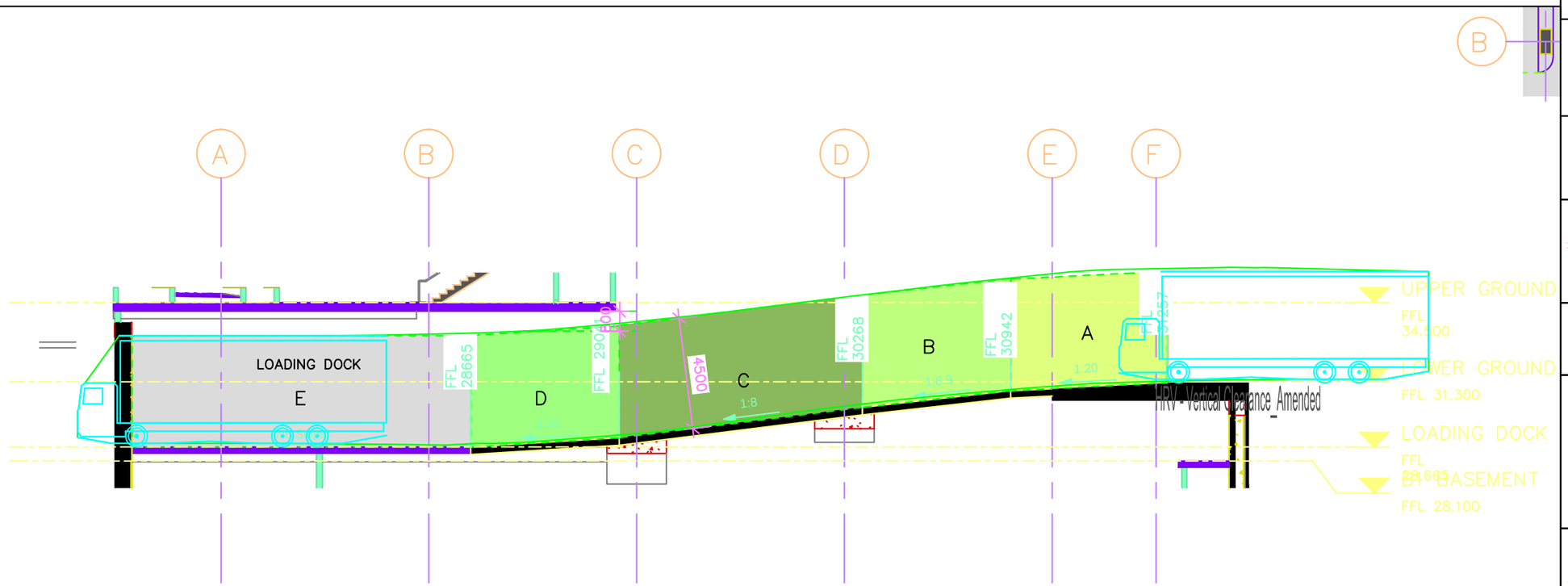
drawn:	checked:	date:
SW	BL	11 Dec 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.06	-

APPENDIX F

Vertical Clearance Test





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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:200 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by

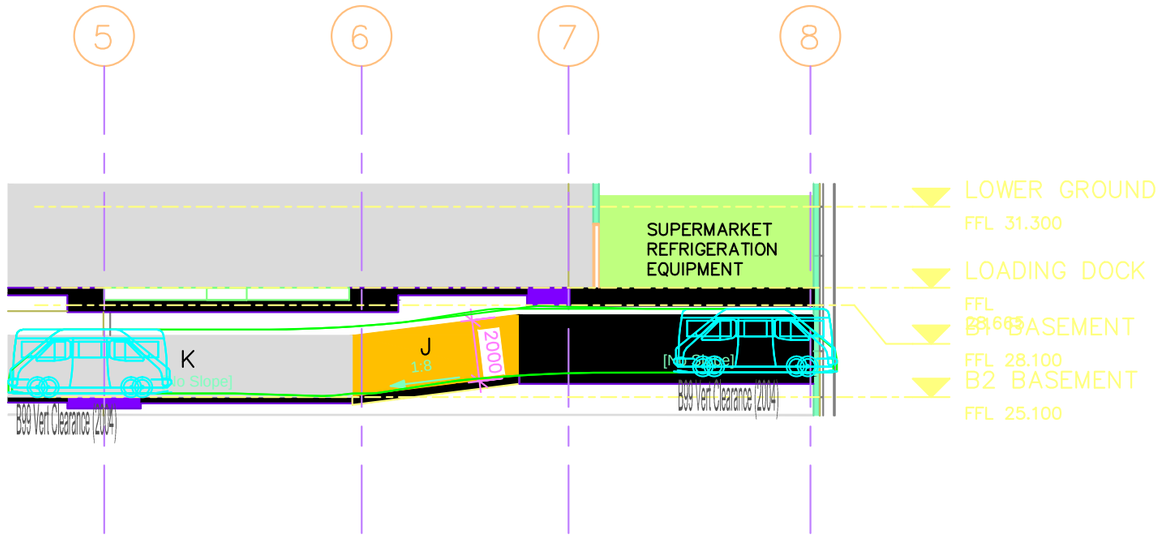
TRAFFIX
traffic and transport planners
Suite 2.08, 50 Holt Street
Surry Hills NSW 2010
PO Box 1124
Strawberry Hills NSW 2012
t: +61 2 8324 8700
f: +61 2 9380 4481
e: info@traffix.com.au

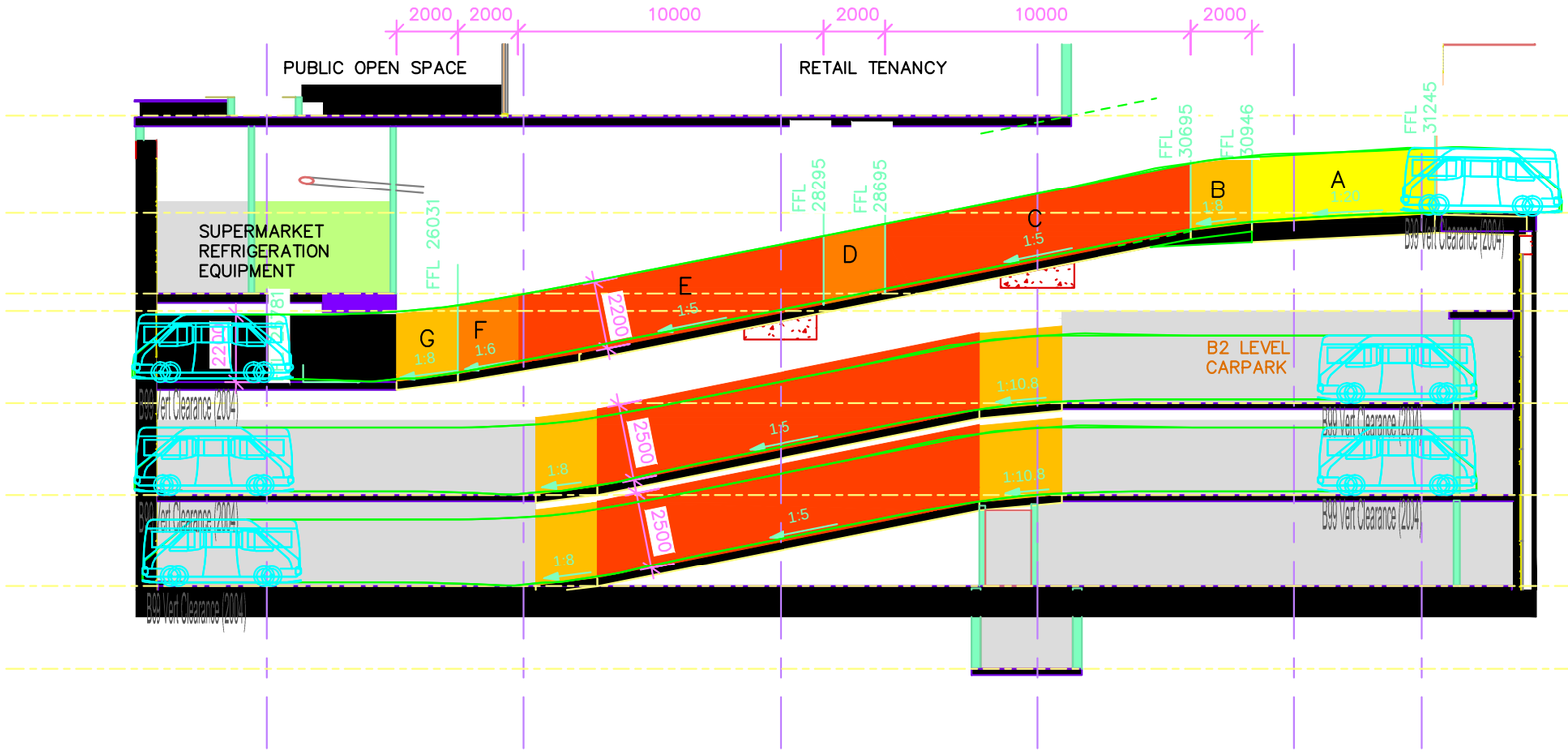
traffix
traffic & transport planners

drawing title
Vertical Clearance Test
Loading Dock
12.5m Heavy Rigid Vehicle (4.5m Height)

drawn:	checked:	date:
SW	BL	31 Oct 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.07	-





Notes

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no.	revision note	by.	date

Swept Path Legend:

- Wheel Path
- Vehicle Body Envelope
- Clearance Envelope (300mm)

architect
Sissons Architects

client
Drill Pty Ltd

scale
1:200 @ A3
0m 2 4 6 8

project
24-26 Railway Parade, Westmead

drawing prepared by

TRAFFIX
traffic and transport planners

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Surry Hills NSW 2010

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Strawberry Hills NSW 2012

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e: info@traffix.com.au

traffix
traffic & transport planners

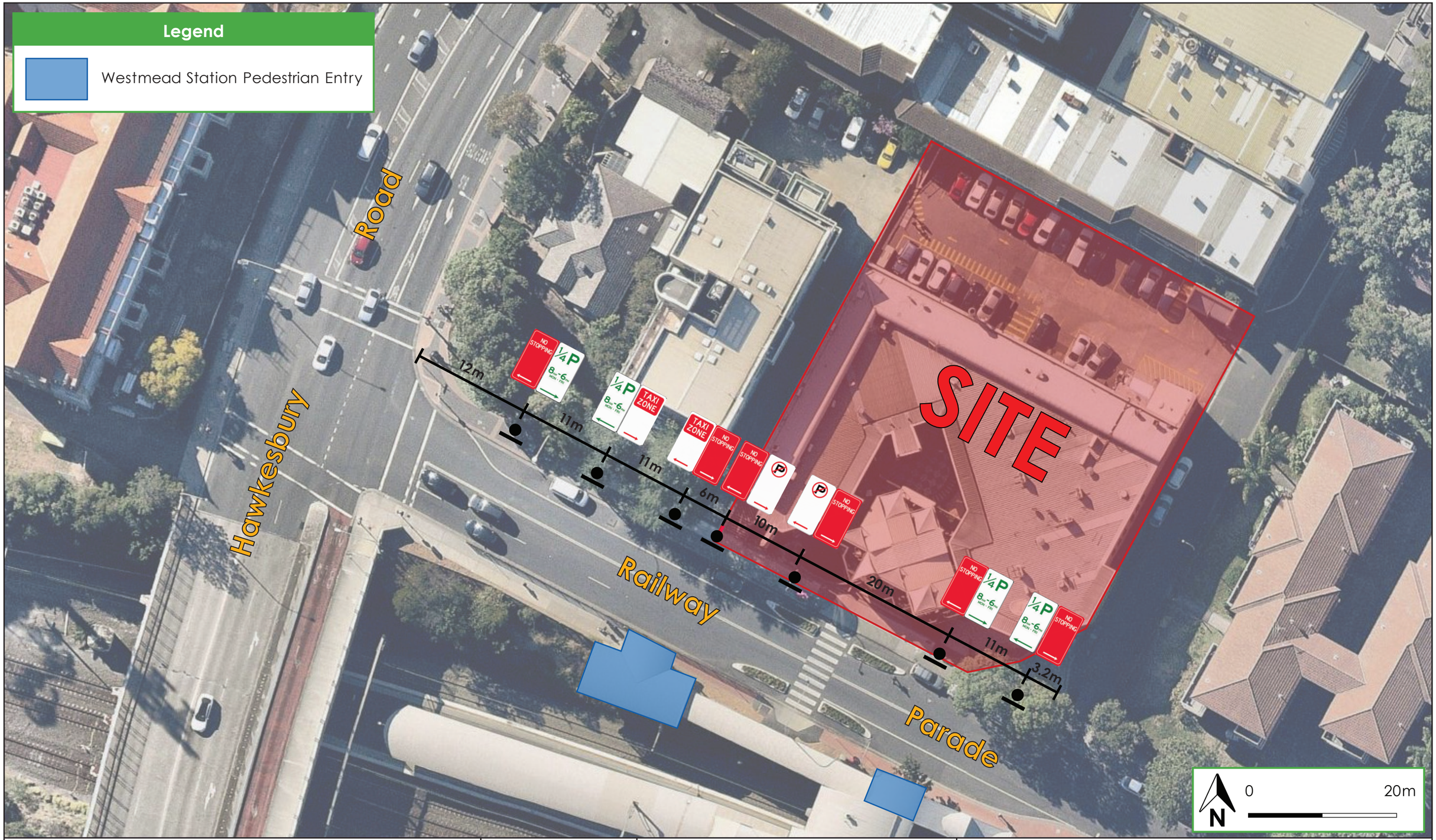
drawing title
Vertical Clearance Test
Basement Car Park
B99 Vehicle

drawn:	checked:	date:
SW	BL	31 Oct 18

project no.	drawing phase.	drawing no.	rev
16.443	-	TX.08	-

APPENDIX G

Existing On-Street Signage Plan



Existing Signage Plan		**Date:**	04.09.2017
Project:	24-26 Railway Parade, Westmead	**Prepared By:**	Eamon McBride
Project Number:	16.443	**Approved By:**	Alexandra Kavanagh
Client:	First Point Property	**Signature:**	

TRAFFIC & TRANSPORT PLANNERS

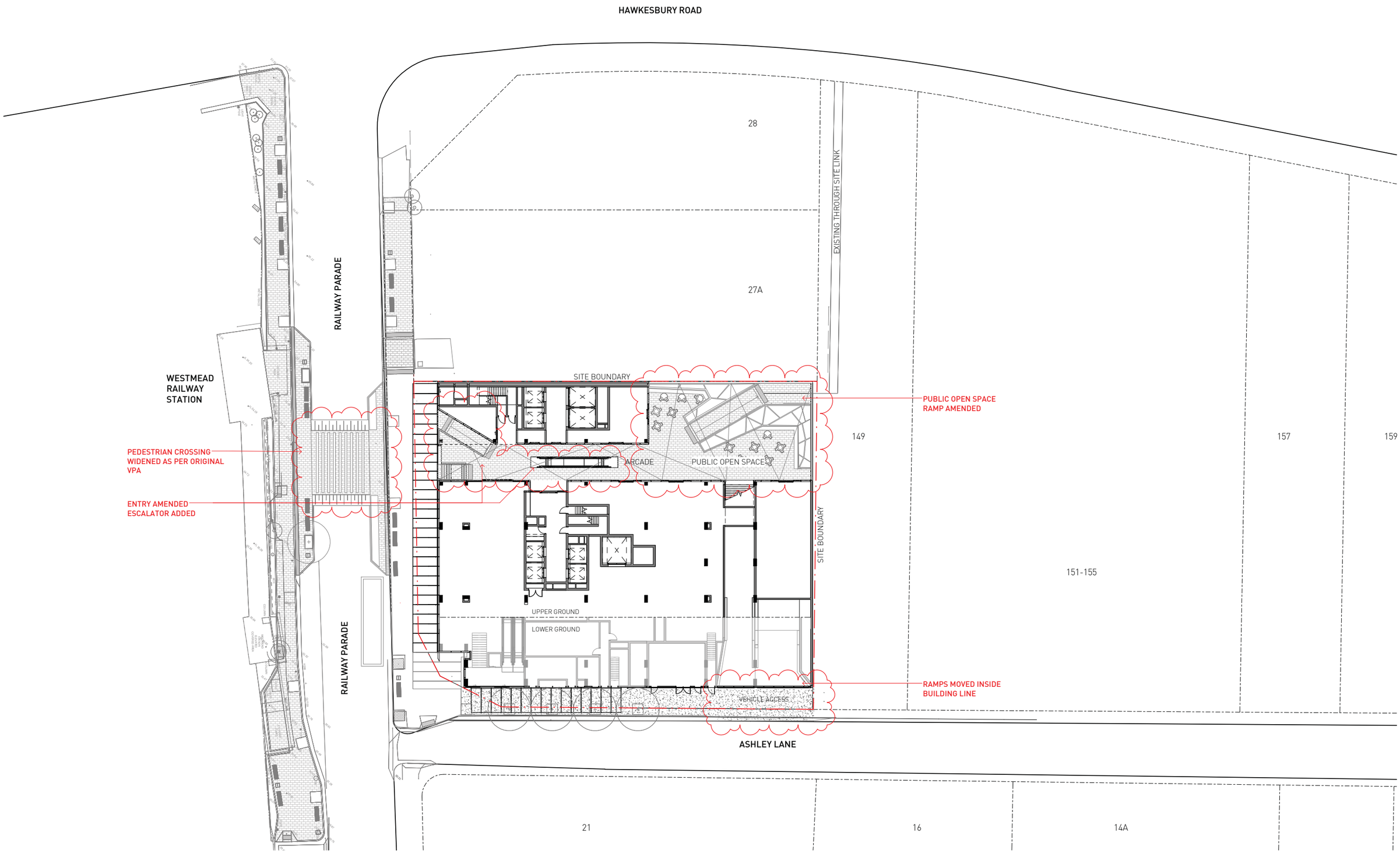
Suite 2.08
50 Holt Street
Surry Hills NSW 2010

(02) 8324 8700
info@traffix.com.au

TRAFFIX

APPENDIX H

Proposed Public Domain Plan



General Notes

1. Do not scale drawings. Dimensions govern.
2. All dimensions are in millimetres unless noted otherwise.
3. All dimensions shall be verified on site before proceeding with the work
4. All omissions or discrepancies shall be notified to the architect
5. Mechanical and Electrical plant and services shown are indicative only. Refer to Service Engineers drawings.
6. All steelwork section sizes are indicative only. Refer to Structural Engineers drawings for serial sizes.

Rev.	Date	Comment
A	28.05.2018	DA SUBMISSION
B	26.10.2018	REVISED DA

North

Project
24-26 Railway Parade Westmead 2145
NSW

Client
Drill Pty Ltd

Architect
SISSONS ARCHITECTS
Studio 501, Level 5
53 Berry St, North Sydney, NSW 2060
Tel. 02 8904 1853
www.sissonsarchitects.com

Scale
1 : 250 @A1 HALF SCALE @ A3

Drawing Title
OVERALL GROUND FLOOR PLAN - PROPOSED

DEVELOPMENT APPLICATION

16-021 DA009 B
Project No. Drawing No. Rev.