TRAFFIC IMPACT ASSESSMENT

Planning Proposal

1-17 Segers Avenue, Padstow

Prepared for: Bayswater Property Group

Reference: 0074r01v01

Date: 13/09/2018

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1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Bayswater Property Group to undertake a Traffic Impact Assessment of a Planning Proposal (Proposal) relating to the site at 1-17 Segers Avenue, Padstow. The Planning Proposal seeks to permit a 6-storey mixed-use development having the following characteristics:

- 143 residential apartments;
- 2,495m^2 of commercial / retail gross floor area (GFA);
- Ground floor and basement level car parking accommodating a total of 234 car spaces;
- Two vehicle access driveways onto Segers Avenue;
- Upgrade of the existing pedestrian link between Segers Avenue and Padstow Parade.

The site is located within the Canterbury-Bankstown local government area however a consolidated Development Control Plan for the Canterbury-Bankstown LGA is yet to be announced or adopted. The proposed development has therefore been assessed in accordance with the Bankstown Development Control Plan 2015 and Local Environmental Plan 2015.

1.2. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the development contemplated following rezoning of the site, and should be read in the context of the Planning Proposal report prepared separately by ABC Planning. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality;
- Section 3: Describes the development contemplated under the Proposal;
- Section 4: Assesses the parking requirements of the development;
- Section 5: Assesses the traffic generation and impacts of the development;
- Section 6: Discusses the proposed access and internal design arrangements;
- Section 7: Discusses the existing and proposed pedestrian link between Segers Avenue and Padstow Parade;
- Section 8: Presents the overall study conclusions.

1.3. References

In preparing this report, reference has been made to the following guidelines / standards:

- Bankstown Local Environmental Plan 2015 (Bankstown LEP 2015);
- Bankstown Development Control Plan 2015 (Bankstown DCP 2015);
- State Environmental Planning Policy (Infrastructure) 2007 (SEPP Infrastructure 2007);
- State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65);
- NSW Apartment Design Guide (ADG);
- Disability (Access to Premises – Buildings) Standards 2010 (Disability Standard 2010);
- Australian Standard AS 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1);
- Australian Standard AS 2890.2-2002, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2);
- Australian Standard AS 2890.3-2015, Part 3: Bicycle Parking Facilities (AS 2890.3);
- RMS Guide to Traffic Generating Development 2002 (RMS Guide);
- RMS Technical Direction TDT 2013/04a - Guide to Traffic Generating Developments, Updated Traffic Surveys (RMS Guide Update).

2. Existing Conditions

2.1. Location and Site

The site is located at 1-17 Segers Avenue, Padstow being approximately 200 metres south-west of Padstow Railway Station Railway Station and 19 kilometres south-west of the Sydney CBD. More specifically, it is located on the eastern side of Segers Avenue between its intersection with Howard Road in the north and Faraday Road in the south.

The site is comprised of 10 separate lots, which as a whole, has a total area of approximately 6,400m^2. An existing pedestrian link / walkway is located between 5 Segers Avenue and 7 Segers Avenue which effectively splits the site into 2 parcels of land. **Table 1** below shows the formal identification of each of the 10 lots and describes the existing developments located on each lot.

Table 1: Description of Each Lot

LOT IDENTIFICATION	EXISTING DEVELOPMENT ON SITE	EXISTING VEHICULAR ACCESS
Lot 650, DP 1107732	2 semi-detached residential dwellings	9.0 metre wide combined entry / exit driveway onto an unnamed laneway, serving two double vehicle garages.
Lot 651, DP 1107732		
Lot 21, DP 20572	Single residential dwelling	3.0 metre combined entry / exit driveway onto an unnamed laneway serving a detached garage.
Lot 221, DP 132286	Single residential dwelling	3.0 metre combined entry / exit driveway onto an unnamed laneway serving a detached garage.
Lot 23, DP 660642	Single residential dwelling	3.0 metre combined entry / exit driveway onto Segers Avenue.
Lot 24, DP 20572	Single residential dwelling	No vehicular access provided.
Lot 25, DP 20572	Single residential dwelling	3.0 metre combined entry / exit driveway onto Segers Avenue.
Lot 26, DP 20572	Single residential dwelling	3.0 metre combined entry / exit driveway onto Segers Avenue.
Lot 27, DP 20572	Single residential dwelling	3.0 metre combined entry / exit driveway onto Segers Avenue.
Lot 18, DP 16608	Single residential dwelling	3.0 metre combined entry / exit driveway onto Segers Avenue.

The site has a 125 metre long street frontage to Segers Avenue, being located to the immediate west. The eastern boundary has a total length of 120 metres which borders a neighbouring multi-storey public car park and residential development, and includes a 55 metre street frontage to an unnamed laneway. The northern and southern boundaries border neighbouring residential dwellings, having lengths of 43 metres and 63 metres respectively.

The existing pedestrian link / walkway discussed above runs between Segers Avenue and Padstow Parade. It is approximately 43 metres long and has a narrow width of 3.0 metres. It incorporates a footpath along its length having a reduced width of only 1.4 metres. **Figures 1 and 2** overleaf provide an appreciation of the site's location in both a broad and local context respectively.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 1** overleaf, with the following roads considered noteworthy:

- M5 South-Western Motorway : a major RMS motorway that runs in an east-west direction between Kyeemagh in the east and Prestons in the west. Near the site, it is subject to 100km/h speed zoning restrictions and accommodates 3 lanes of traffic in each direction, within a 30 metre wide divided carriageway.

- Davies Road: forms part of an RMS Main Road, MR 190. Davies Road runs in a north-south direction intersecting Fairford Road and Watson Road in the north and connecting with Alfords Point Road in the south. Near the site, it is subject to 70km/h speed zoning restrictions, accommodates 2 lanes of traffic in each direction and carries approximately 23,000 vehicles per day (vpd).

- Padstow Parade: a local road that runs in a north-west to south-east direction intersecting Howard Road and Memorial Drive in the north and Faraday Road in the south. Padstow Parade is subject to 40km/h speed zoning restrictions and carries a single lane of traffic in each direction. It is subject to timed (1 hour) parking restrictions along both kerbsides between the hours of 8:30am-6:00pm, Monday to Friday, and 8:30am-12:30pm on Saturday.

- Unnamed Laneway: an unnamed laneway traverses the north-eastern boundary of the site and connects to Padstow Parade. The north-eastern section of the laneway is provided in the form of a shared zone. The laneway provides access to the rear of the subject site, and to a number of retail developments fronting Padstow Parade and Howard Street. It also accommodates all vehicle movements to / from the adjacent multi-storey public car park and is subject to 10km/h speed zoning restrictions.

- Segers Avenue: a local road that runs in a north-west to south-west direction between Howard Road in the north and Faraday Road in the south. It is generally subject to 50km/h speed zoning restrictions however, 40km/h School Zone restrictions apply between the hours of 8:00-9:30am and 2:30-4:00pm on school days only. It generally permits unrestricted parking on both kerbsides however, timed (1 hour) parking restrictions apply between its intersections with Howard Road and Gloucester Avenue during the hours of 8:30am-3:30pm, Monday to Friday, and 8:30am-12:30pm on Saturdays. Additionally, timed (5 minute) parking restrictions apply along the western kerbside, fronting Padstow Park Public School between the hours of 8:00-9:30am and 2:30-4:00pm on school days only.

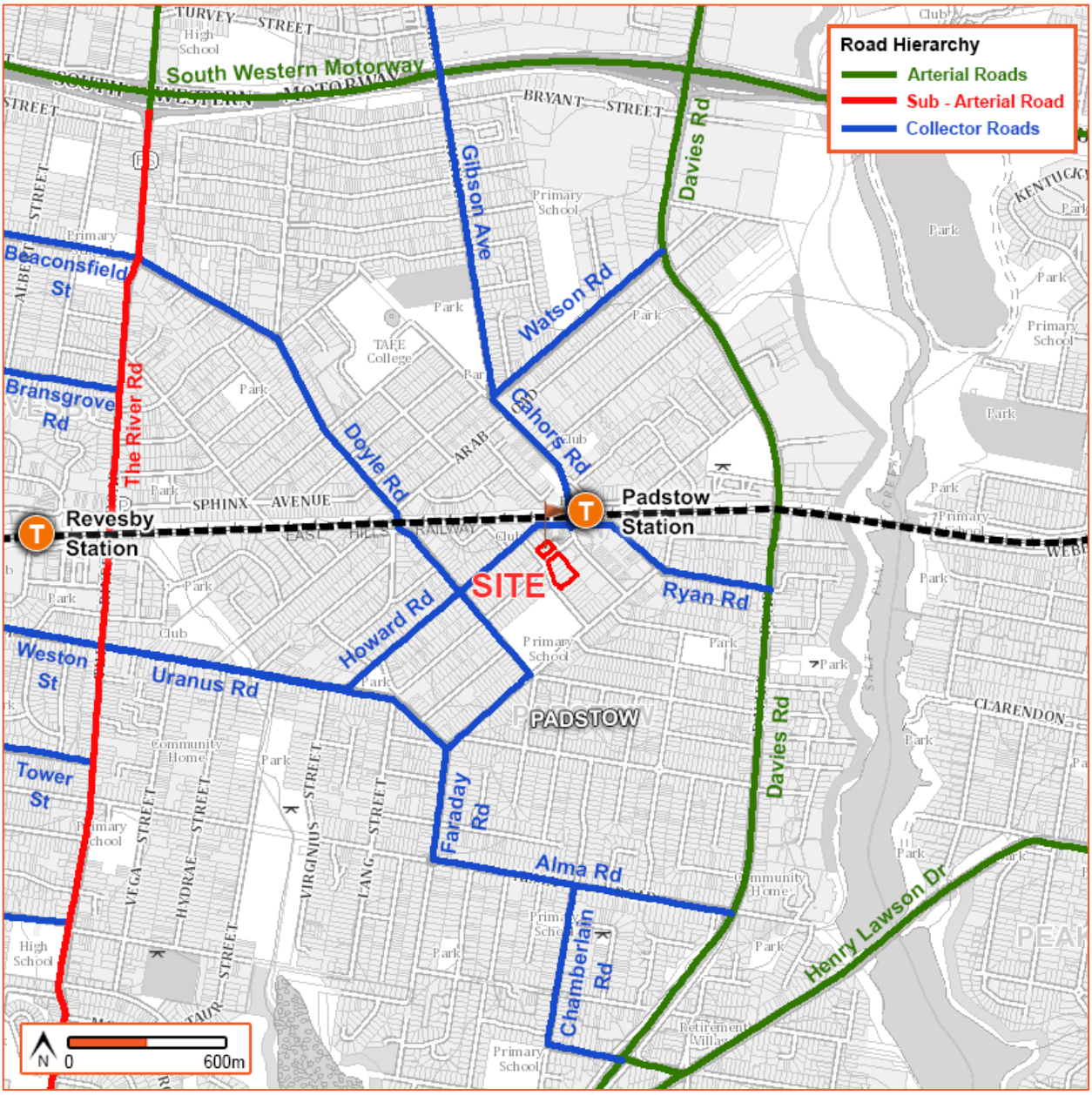


Figure 1: Location & Road Hierarchy Plan

Figure 2: Site Plan

2.3. Active Transport

2.3.1. Bus Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan bus services includes all areas within a 400 metre radius of a bus stop. As can be seen from **Figure 3**, the site is situated within 400 metres of numerous bus stops, including bus stops operating from Padstow Railway Station which accommodate a substantial number of services. Accordingly, residents, staff and visitors would have convenient access to these services to journeys to / from the development. **Table 2** below shows the notable town centres that are accessible via the abovementioned bus services and the average service headways during peak and off-peak periods.

Table 2: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DECRIPTION	AVERAGE HEADWAY
926	Revesby Heights to Bankstown	Via Padstow	Weekdays: 30 minutes peak / 1 hour off peak Weekends: 1 hour on Saturdays / No service on Sundays
927	One Tree Point to Padstow	Via Chamberlain Road	Weekdays: 30 minutes peak only Weekends: No services
962	Bankstown to Miranda	Via Padstow, Illawong, Menai & Gymea	Weekdays: 10-20 minutes peak / 30 minutes off peak Weekends: 30 minutes on Saturdays & 1 hour on Sundays
963	Alfords Point to Menai	Loop Service	Weekdays: Limited services Weekends: No services
965	Sutherland to Woronora	Loop Service	Weekdays: 1 hour all day Weekends: 1 hour on Saturdays & Sundays
M91	Fairfield to Parramatta	Via Padstow & Chester Hill	Weekdays: 10 minutes peak / 15 minutes off peak Weekends: 20 minutes on Saturdays & Sundays
M92	Sutherland to Parramatta	Via Menai, Illawong, Padstow, Bankstown, Yagoona, Regents Park, Lidcombe & Rosehill	Weekdays: 10 minutes peak / 15 minutes off peak Weekends: 20 minutes on Saturdays & Sundays
N40	East Hills to City Town Hall	Via Bankstown, Punchbowl, Belmore, Canterbury, Dulwich Hill, Marrickville & Chippendale	Night-ride service
S5	Milperra to Padstow	Via Panania	Weekdays: 75 minutes all day Weekends: No services
DSA	Gibson Avenue near Archibald St to DSA Condell	Via Revesby	Weekdays: 1 morning & afternoon service Weekends: No service

2.3.2. Rail Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan railway stations includes all areas within an 800 metre radius of a station. It can be seen from **Figure 3** that Padstow Railway Station is located approximately 200 metres (or 5 minute walk) from the site and hence, falls well within the typical walking catchment area. Accordingly, residents, staff, and visitors of the proposed development would have convenient access the Sydney rail network, as shown by **Figure 4**.

Padstow Railway Station is serviced by a single railway line, being the T8 Airport & South Line. The T8 Airport & South Line generally runs east-west direction between the Sydney CBD and Macarthur / Leppington. **Table 3** below shows the notable town centres that are accessible along the T1 Northern Line and the average service headways during peak and off-peak periods.

Table 3: Rail Services

RAILWAY LINE	NOTABLE TOWN CENTRES ALONG LINE	AVERAGE HEADWAY
T8 Airport & South Line	Macarthur, Campbelltown, Revesby, Wolli Creek, Domestic Airport, International Airport & Sydney CBD	Weekdays: 3-9 minutes all day Weekends: 4-11 minutes all day

2.3.3. Cycle Network

Figure 3 also shows that the site has relatively poor access to the local cycle path network. Whilst there are a number of on-road and off-road paths provided to the north-east and south-west of the site, these are located approximately 1 kilometre away with no available cycle path connections.

2.4. Existing Traffic Generation

As discussed in Section 2.1 of this report, the site is comprised of 10 lots, each accommodating a residential dwelling. These attract a trip rate of 0.95 trips / dwelling / hour during the 7-9am (AM) peak period and 0.99 trips / dwelling / hour during the 4-6 (PM) peak period under the RMS Guide Update. Application of these rates to the 10 existing residential dwellings results in the following traffic generation:

- 10 vehicle trips / hour (2 in, 8 out), during the AM peak period
- 10 vehicle trips / hour (8 in, 2 out), during the PM peak period

The above assumes an inbound split of 20 / 80 during the AM peak period noting that most residents would leave for work in the weekday morning period, and vice versa for the weekday PM peak period.

The above traffic generation has been used to assess the net change in traffic generation as a result of the development contemplated under the Planning Proposal, as is discussed in Section 5.1 of this report.

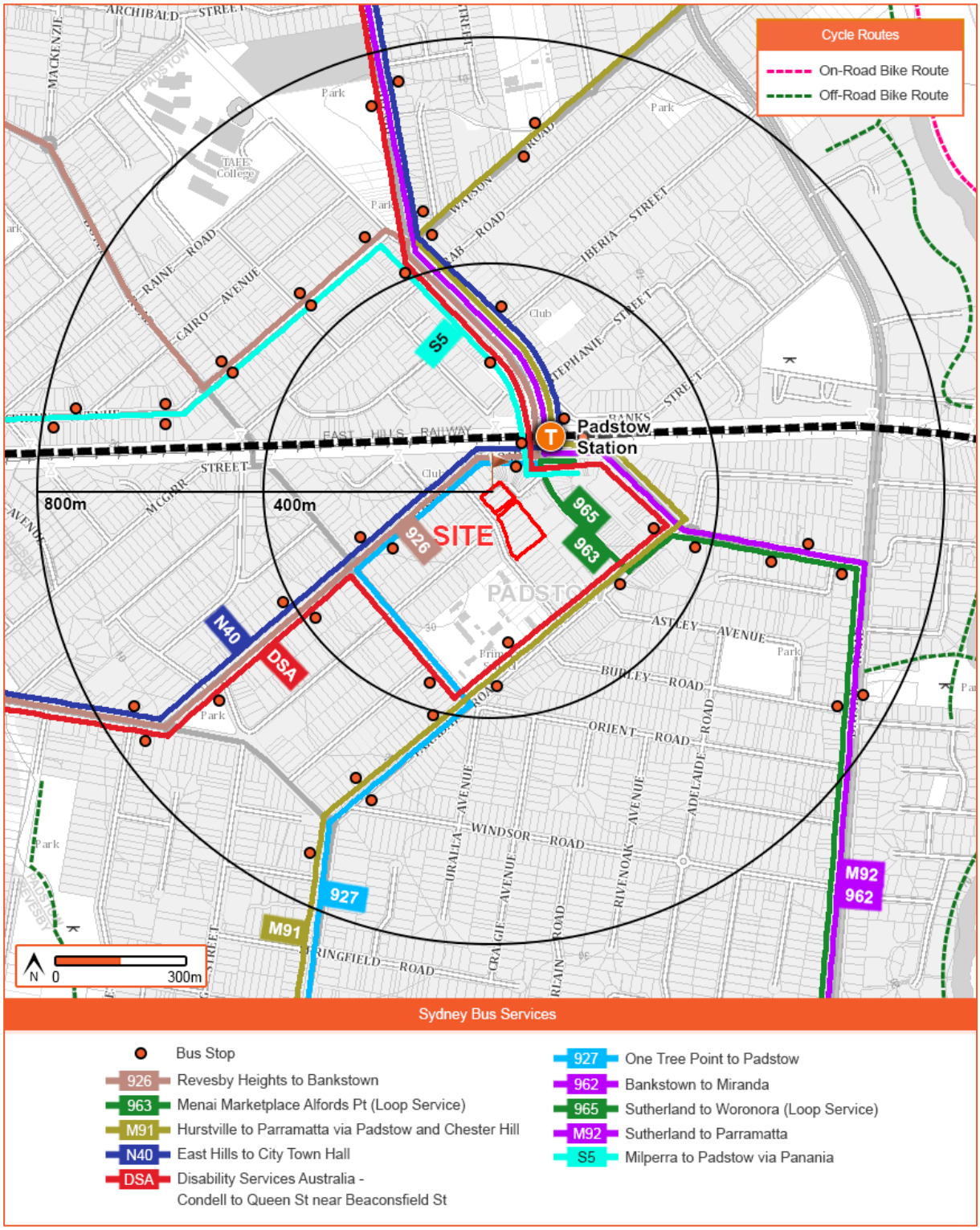


Figure 3: Active Transport Services

Figure 4: Sydney Trains Rail Network - Suburban

2.5. Existing Transport Mode Characteristics

To gain an understanding of the existing modes of transport within the suburb of Padstow, reference was made to the Australian Bureau of Statistics 2016 Census Data. **Chart 1** below shows the travel modes used by residents of Padstow, for all journeys to / from work. Additionally, **Chart 2** shows the travel modes used by persons who work within Padstow, for all journeys to / from work.

Chart 1: Padstow Residents – Travel Mode for Journey to Work

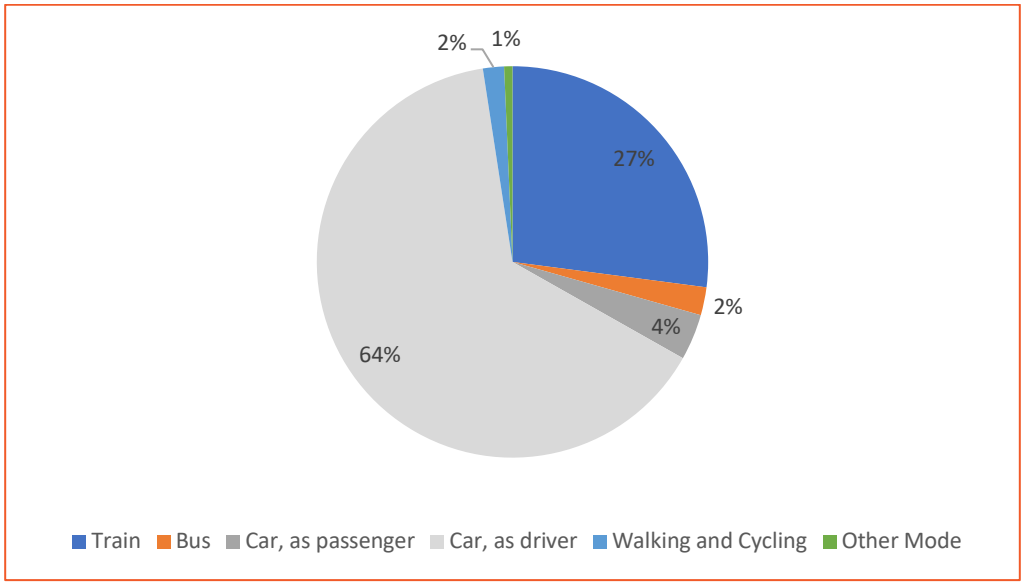
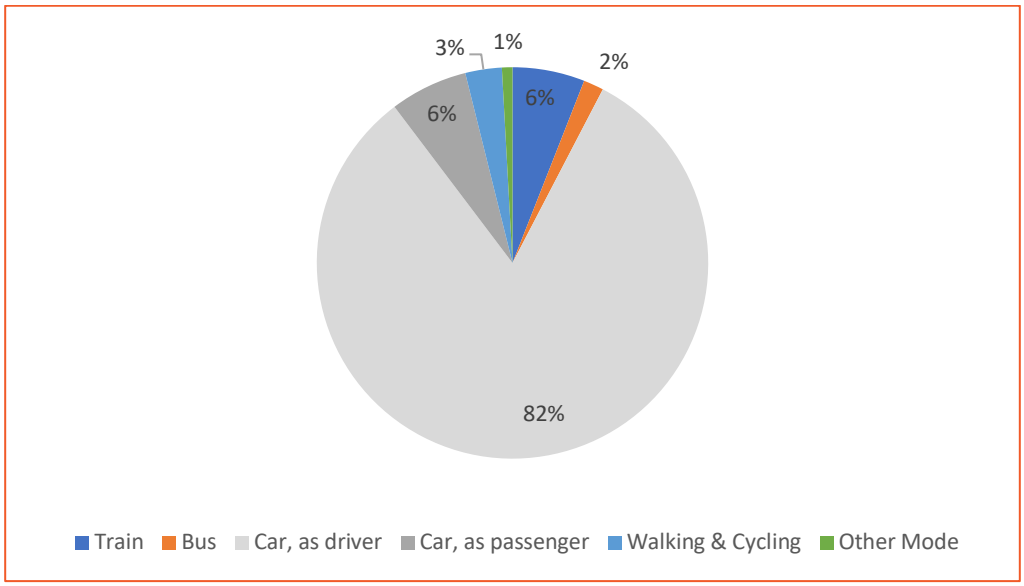


Chart 2: Padstow Workers – Travel Mode for Journey to Work



It can be seen from **Chart 1**, that there is a considerable reliance on private car transport for residents of Padstow with 68% of residents using private vehicles for journeys to/from work including 64% as 'car drivers' and 4% as 'car passengers'. The remaining 32% of residents use alternative transport modes for journeys to/from work including 27% by train, 2% by walking / cycling, 2% by bus and 1% by other means.

Chart 2 shows that there is a high reliance on private car transport for workers of Padstow with 88% of workers using private vehicles for journeys to/from work including 82% as 'car drivers' and 6% as 'car passengers'. The remaining 12% of workers use alternative transport modes including 6% by train, 3% by walking / cycling, 2% by bus and 1% by other means.

2.6. Existing Intersection Performance

To determine the existing performances of key intersections within the vicinity of the site, traffic surveys were undertaken on a typical Tuesday being 21/08/2018, between the hours of 7:00-9:00am and 4:00-6:00pm which correspond to the weekday AM and PM commuter peak periods respectively. The raw survey data is included in **Appendix A**, for reference. The key intersections identified and surveyed for this assessment include:

- Memorial Drive / Padstow Parade / Howard Road;
- Segers Avenue / Howard Road;
- Segers Avenue / Faraday Road;
- Howard Road / Faraday Road;
- Howard Road / Ryan Road / Parmal Avenue / Parker Lane.

The results of the surveys were used to develop existing (base-case) SIDRA models of the above key intersections for the AM and PM peak periods. The base models were calibrated and validated against intersection queue lengths and phase / cycle times, as was observed during separate site inspections undertaken during both the AM and PM peak periods. Additionally, it is noted that due to the close proximity of the Howard Road / Faraday Road and Howard Road / Ryan Road / Parmal Avenue / Parker Lane intersections, both intersections have been modelled as a network using the SIDRA network functionality.

SIDRA modelling outputs a range of performance measures, in particular:

- Degree of Saturation (DOS) – The DOS is used to measure the performance of intersections where a value of 1.0 represents an intersection at theoretical capacity. As the performance of an intersection approaches DOS of 1.0, queue lengths and delays increase rapidly. It is usual to attempt to keep DOS to less than 0.9, with satisfactory intersection operation generally achieved with a DOS below 0.8.
- Average Vehicle Delay (AVD) – The AVD (or average delay per vehicle in seconds) for intersections also provides a measure of the operational performance of an intersection and is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection. For Give Way, Stop & Roundabout controlled intersections, the AVD reported is that for the movement with the highest AVD.

- Level of Service (LOS) – This is a comparative measure that provides an indication of the operating performance, based on AVD.

Table 4 below provides a recommended baseline for assessment of intersection performance as per the RMS Guide.

Table 4: Intersection Performance Criteria

LEVEL OF SERVICE	AVERAGE DELAY PER VEHICLE (seconds/vehicle)	TRAFFIC SIGNALS AND ROUNDABOUTS	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 spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 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, 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 modelling results for the existing (base-case) models is provided in **Table 5** below. Reference should also be made to the detailed SIDRA outputs provided in **Appendix B** which provide additional information regarding intersection performance.

Table 5: Summary of SIDRA Modelling Results - Existing

INTERSECTION	SCENARIO	PERIOD	DEGREEE OF SATURATION	AVERAGE DELAY (seconds)	LEVEL OF SERVICE
Memorial Drive / Padstow Parade / Howard Road	Existing	AM	0.609	26.4	B
		PM	0.826	29.8	C
Segers Avenue / Howard Road[1]	Existing	AM	0.015	6.5	A
		PM	0.017	7.0	A
Segers Avenue / Faraday Road[1]	Existing	AM	0.014	7.0	A
		PM	0.044	6.9	A
Howard Road / Parmal Avenue / Parker Lane / Ryan Road[1]	Existing	AM	0.031	8.1	A
		PM	0.212	7.5	A
Howard Road / Faraday Road[1]	Existing	AM	0.235	6.4	A
		PM	0.358	7.7	A

1. *Results shown are for the movement with the highest delay in accordance with the RMS Guide.*

It is evident from **Table 5** above, that the Memorial Drive / Padstow Parade / Howard Road intersection operates satisfactorily under existing conditions with a DOS of 0.609, AVD of 26.4 seconds and a LOS A during the AM peak period. The results also show the performance of the intersection worsens slightly during the PM peak period with a DOS of 0.826, AVD of 29.8 seconds and a LOS C.

Table 5 also shows that all other intersections operate very well during both the AM and PM peak periods. Indeed, all intersections operate with minimal delays and degree of saturation, with a LOS A during both the AM and PM peak periods.

Nevertheless, it is important to note that that the most relevant use of these results is to compare the relative change in performance as a result of the proposed development as is discussed in Section 5 of this report.

3. Development Contemplated Under Planning Proposal

The subject Planning Proposal report prepared by ABC Planning, provides a detailed description of the proposed changes to the Bankstown LEP 2015 and development contemplated for the site. Specifically, the Proposal seeks to alter the following standards:

- Rezoning of the subject site: from R2 Low Density Residential to B2 Local Centre;
- Change in height: from 9m to 24m;
- Change in floor to space ratio: from 0.5:1 to 2.5:1.

The Planning Proposal seeks to permit a 6-storey mixed-use development having the following characteristics:

- 143 residential apartments comprising;
    - 21 x one-bedroom apartments;
    - 111 x two-bedroom apartments;
    - 11 x three-bedroom apartments;
- 2,495m^2 of commercial / retail gross floor area (GFA);
- Ground floor and basement level car parking accommodating a total of 234 car spaces;
- Two vehicle access driveways onto Segers Avenue;
- Upgrade of the existing pedestrian link between Segers Avenue and Padstow Parade.

The parking and traffic implications arising from the above development are discussed in Sections 4 and 5 respectively. A copy of the preliminary architectural drawings, prepared by Ross Howieson Architects, is also included in **Appendix C**.

4. Parking Requirements

4.1. Car Parking

4.1.1. Residential Car Parking

The site is situated 200 metres from Padstow Railway Station and hence, falls within an 800 metre radius of railway station within the Sydney Metropolitan Area. Accordingly, the car parking requirement for the residential apartment component of the development is to be assessed in accordance with both the Bankstown DCP 2015 and ADG, as stipulated by Clause 30(1)(a) of the SEPP 65.

As stated by Objective 3J-1 of the ADG, the minimum car parking requirement for a residential flat building development is set out in the RMS Guide or Council's DCP, whichever is less. In this regard, the car parking requirement for the Proposal has been assessed separately against the both the RMS Guide and Bankstown DCP 2015, as is discussed below.

Table 6 below shows the residential car parking requirement for the development under application of both the RMS Guide and Bankstown DCP 2015.

Table 6: Residential Car Parking Requirement and Provision

TYPE	NO.	RMS PARKING RATE	DCP PARKING RATE	RMS REQUIREMENT	DCP REQUIREMENT	PROVISION
One Bedroom	21	0.6 spaces / unit	1.0 space / unit	127	93	171
Two Bedroom	111	0.9 spaces / unit	0.6 spaces / unit			
Three Bedroom	11	1.4 spaces / unit	0.5 spaces / unit			
Visitor	143	0.2 spaces / unit	0.2 spaces / unit	28	28	
			TOTAL	***155***	***121***	***171***

It is evident from Table 6 above that the residential component of the development requires a minimum of 155 car spaces under the RMS Guide and 121 car spaces under the Bankstown DCP 2015. In response, the development provides 175 residential car spaces and therefore exceeds the minimum requirements of both the RMS Guide and Bankstown DCP 2015. The proposed residential car parking provision is therefore considered acceptable and will ensure that all car parking demands are accommodated on-site, with no reliance on on-street parking.

4.1.2. Commercial / Retail Car Parking

The car parking requirement for the commercial and retail component of the development has been assessed in accordance with the Bankstown DCP 2015. **Table 7** below shows the minimum car parking requirement under the applicable 'business / office premise' car parking rate and the proposed provision in response.

Table 7: Commercial / Retail Car Parking Requirement and Provision

TYPE	GFA.	DCP PARKING RATE	DCP REQUIREMENT
Commercial / Retail	2,495m^2	1.0 space /40m^2 GFA	63
		TOTAL	***63***

It is evident from **Table 7** above that the commercial / retail component of the development requires a total minimum of 63 parking spaces under application of the Bankstown DCP 2015. In response, the architectural drawings included in **Appendix C** indicate that the development will provide a total of 59 retail / commercial car parking spaces, being 4 spaces less than the minimum requirement.

Notwithstanding, as discussed in Section 4.1.1 of this report, the residential car parking provision of 171 car parking spaces is 16 spaces more than the minimum required under the RMS Guide and 50 car spaces more than the minimum required under the Bankstown DCP 2016. Accordingly, the development would be able to readily reallocate 4 residential car spaces to 4 retail / commercial spaces, ensuring that the development provides a total of 63 retail / commercial parking spaces in accordance with **Table 7** above. The development is therefore able to comply with the retail / commercial parking requirements of the Bankstown DCP 2015.

4.2. Bicycle Parking

Whilst Part B5 of the Bankstown DCP 2015 does not stipulate any bicycle parking rates for residential or retail / commercial uses, it does state that '*Council may require development to provide appropriate bicycle parking facilities either on-site or close to the development*'.

In response, the architectural drawings included in **Appendix C** indicate that the development will provide a total of 46 bicycle parking spaces within the car parking areas which is considered an acceptable level of provision and will encourage the use of active transport by residents, staff and visitors. Additionally, it is noted that there is ample space within the car parking areas to accommodate additional bicycle parking should this be required by Council.

4.3. Service Vehicle Parking & Waste Collection

Part B5 of the Bankstown DCP 2015 does not stipulate specific service vehicle parking rates for either residential or retail / commercial uses. Accordingly, reference has been made to the RMS Guide which recommends application of a service vehicle parking rate of 1.0 space / 50 units for residential flat buildings and 1.0 space per 4,000m^2 commercial GFA for commercial premises. Application of these rates to the Proposal, results in a minimum requirement for 4 service vehicle bays.

Whilst the architectural drawings included in **Appendix C** do not indicate any service vehicle parking bays, it is considered that the development is able to readily accommodate a total of 4 service vehicles bays in accordance with the above. This would include the provision of an 8.8 metre medium rigid vehicle (MRV) bay within the ground floor car park of the 7-17 Segers Avenue building and a 6.4 metre small rigid vehicle (SRV) bay within the basement car park of the 1-5 Segers Avenue building.

With regard for the above, preliminary swept path analysis has been undertaken of the Proposal with the use of both a 6.4 metre SRV and 8.8 metre MRV. The results are provided as **Appendix D** and indicate that satisfactory entry and exit manoeuvres can be achieved to the ground floor car park of the 7-17 Segers Avenue building by an 8.8 metre MRV and to the basement car park of the 1-5 Segers Avenue building by a 6.4 metre SRV. Importantly, the results also confirm that both vehicles will be able to satisfactorily enter and exit the site in a forward direction.

Waste collection of the development would also occur on-site from within the ground floor car park of the 7-17 Segers Avenue building. In this regard, it is expected that all residential waste would be collected by Council's contractors and all retail / commercial waste collected by a private waste contractor.

5. Traffic Impacts

5.1. Trip Generation

5.1.1. Overview

At the time this report was prepared, no information was available to determine if the commercial / retail tenancies shown on the architectural drawings included in **Appendix C**, would in fact be solely 'commercial' or 'retail', noting that these attract different traffic generation rates under the RMS Guidelines. Accordingly, for the purposes of a conservative estimate to the traffic generation, all non-residential areas have been regarded as retail floor space. The only exception to this is the 'professional suites' which have been regarded as commercial floor space.

5.1.2. Residential

The RMS Guide Update recommends application of a traffic generation rate of 0.19 trips / apartment / hour during the AM peak period and 0.15 trips / apartment / hour during the PM peak period, for high density residential developments. It is however considered that the trip generation of the residential apartments would be marginally higher, given that the above trip rates were generally derived from surveys of high-density residential developments located closer to the Sydney CBD. In this regard, it was considered appropriate to adopt a higher (more conservative) rate of 0.29 trips / apartment / hour, consistent with that recommended under the RMS Guide for high-density residential developments located within metropolitan sub-regional centres. Application of this rate to the 143 apartments proposed, results in the following peak period traffic generation:

- 41 vehicle trips / hour (8 in, 33 out), during the AM peak period
- 41 vehicle trips / hour (33 in, 8 out), during the PM peak period

5.1.3. Commercial

The RMS Guide Update recommends application of a peak period traffic generation rate of 1.6 trips / 100m^2 GFA / hour during the AM peak period and 1.2 trips / 100m^2 GFA / hour during the PM peak period, for commercial developments. Application of these rates to the 735m^2 GFA proposed, results in the following commercial traffic generation:

- 12 vehicle trips / hour (10 in, 2 out), during the AM peak period
- 9 vehicle trips / hour (2 in, 7 out), during the PM peak period

5.1.4. Retail

The RMS Guide recommends application of a traffic generation rate of 4.6 trips / hour / 100m^2 GFA during the weekday PM peak period, for specialty retail shops. Additionally, whilst the RMS Guide does not stipulate a traffic generation rate for the AM peak period, it is expected that this would be in the order of 30% of the PM peak traffic generation, or 1.4 trips / hour / 100m^2 GFA. Application of these rates to the existing 1,760m^2 retail floor space results in the following retail traffic generation:

- 25 vehicle trips / hour (20 in, 5 out), during the AM peak period
- 81 vehicle trips / hour (40 in, 41 out), during the PM peak period

5.1.5. Combined

The total traffic generation of the proposed development is therefore expected to be in the order of:

- 78 vehicle trips / hour (38 in, 40 out), during the AM peak period
- 131 vehicle trips / hour (75 in, 56 out), during the PM peak period

The total traffic generation discussed above is however not a net increase as this does not take into consideration the generation of the existing development, as is discussed in Section 2.4 of this report. In this regard, the net increase in generation as a result of the proposed development is expected to be as follows:

- 68 vehicle trips / hour (36 in, 32 out), during the AM peak period
- 121 vehicle trips / hour (67 in, 54 out), during the PM peak period

5.2. Traffic Distribution

For the purposes of assessing the traffic distribution of the proposed development, it is necessary to analyse the Australian Bureau of Statistics (ABS) 2016 Census Data to confirm the expected travel characteristics of Padstow residents and to confirm the area in Sydney in which these residents work. In this regard, the expected distribution of the residential traffic, as analysed from the ABS 2016 Census Data, is shown by **Table 8** overleaf.

Table 8: Distribution of Residential Traffic To / From the Site

TO / FROM THE NORTH	TO / FROM THE SOUTH	TO / FROM THE EAST	TO / FROM THE WEST
16%	6%	71%	6%

It can be seen from **Table 8** above, it is expected that the majority (87%) of residents will travel to the north and north-east which includes the Sydney CBD, North Sydney and Hornsby, Parramatta and Sydney Inner West regions. Additionally, it can be seen that only 12% of residents are expected to travel to / from the south and south-west region including Sutherland, Outer South-West and Outer-West and Blue Mountains.

In terms of the non-residential traffic, it is evident from the above that most of the traffic generation is associated with the retail floor space which will primarily draw business from the local community including neighbouring suburbs. With this in mind, a generally even distribution of vehicle trips has been assumed onto the external road network, for the non-residential traffic.

Figure 5 overleaf shows the expected increase in traffic volumes through the each of the key intersections in the vicinity of the site, during both the weekday AM and weekday PM peak periods.

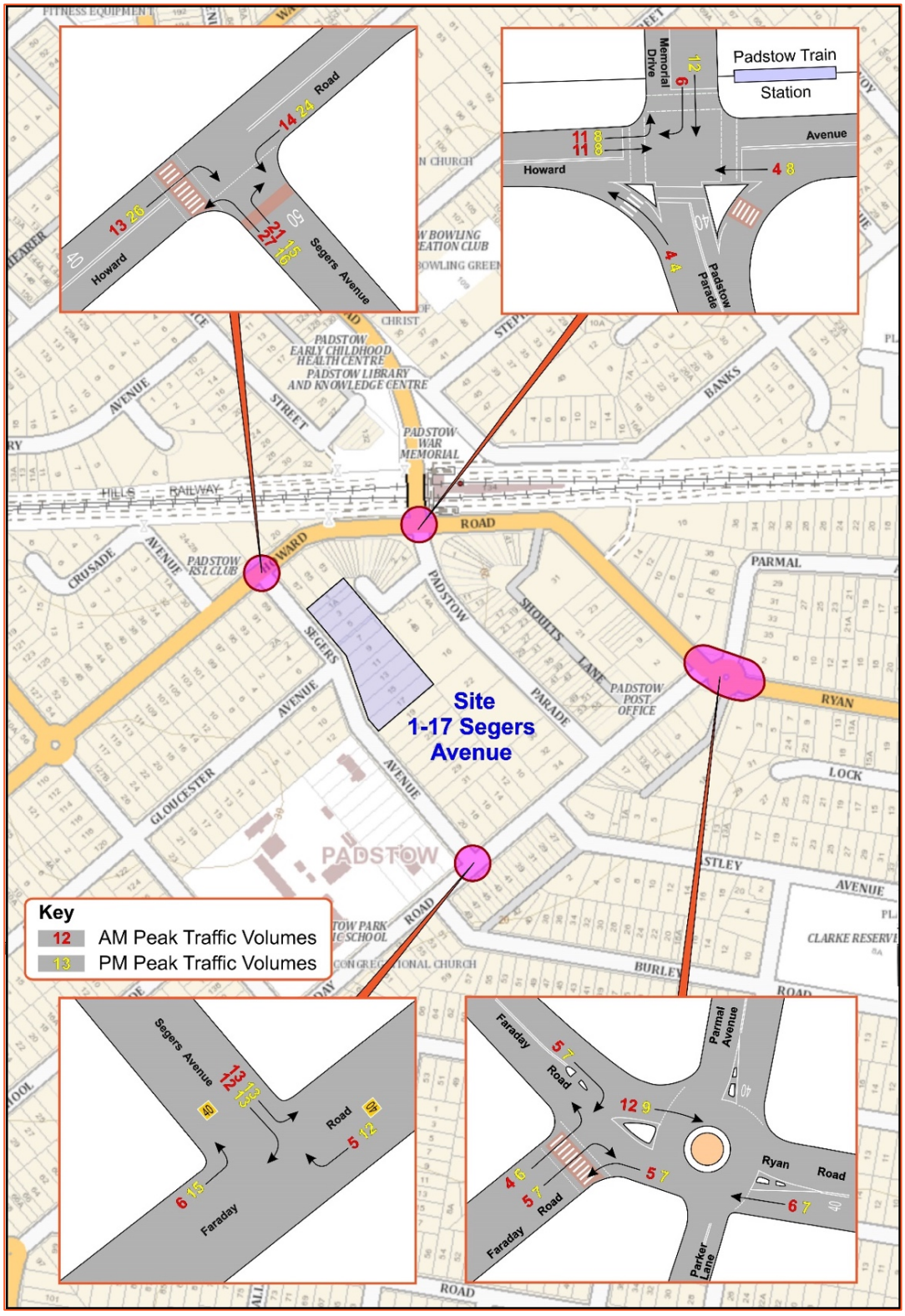


Figure 5: Increase in Traffic Volumes at Key Intersections

5.3. Traffic Impacts

The impact of the increased volumes through each of the key intersections, as shown by **Figure 5**, was analysed using SIDRA. A summary of the modelling results is presented in **Table 9** below, with the detailed SIDRA outputs provided in **Appendix B**. **Table 9** also provides a comparison against the existing intersection performances which have been extracted from **Table 5**.

Table 9: Summary of SIDRA Modelling Results – Existing & Future

INTERSECTION	SCENARIO	PERIOD	DEGREEE OF SATURATION	AVERAGE DELAY (seconds)	LEVEL OF SERVICE
Memorial Drive / Padstow Parade / Howard Road	Existing	AM	0.609	26.4	B
		PM	0.826	29.8	C
	Existing + Development	AM	0.635	26.6	B
		PM	0.834	30.5	C
Segers Avenue / Howard Road[1]	Existing	AM	0.015	6.5	A
		PM	0.017	7.0	A
	Existing + Development	AM	0.042	7.1	A
		PM	0.039	7.8	A
Segers Avenue / Faraday Road[1]	Existing	AM	0.014	7.0	A
		PM	0.044	6.9	A
	Existing + Development	AM	0.031	7.4	A
		PM	0.063	7.4	A
Howard Road / Parmal Avenue / Parker Lane / Ryan Road[1]	Existing	AM	0.031	8.1	A
		PM	0.212	7.5	A
	Existing + Development	AM	0.031	8.2	A
		PM	0.214	7.6	A
Howard Road / Faraday Road[1]	Existing	AM	0.235	6.4	A
		PM	0.358	7.7	A
	Existing + Development	AM	0.251	6.6	A
		PM	0.382	8.1	A

1. Results shown are for the movement with the highest delay in accordance with the RMS Guide.

As can be seen from **Table 9** above, the increase in traffic volumes as a result of the Proposal, will have minimal impacts on the performance of all identified key intersections. Indeed, all intersections will experience only minor increases in the DOS and AVD, with no change to the existing LOS. In this regard, all intersections will continue to operate satisfactorily with acceptable delays and spare capacity.

Additionally, it is considered noteworthy to mention that the AM peak period traffic generation of the development will coincide with the morning drop-off peak period for the Padstow Park Public School. The generation of the development during this AM peak period is however moderate, and as demonstrated by the SIDRA results, will have minimal impacts on the operation of the external road network including Segers Avenue.

Whilst the PM peak period traffic generation of the development will be considerably higher, it is critical to note that the development peak period will occur between 5:00-6:00pm, and hence will not coincide with the pick-up peak period of the Padstow Park Public School which will occur between 2:30-3:30pm. Accordingly, the development will have minimal impacts on the existing pick-up arrangements of the Padstow Park Public School during the afternoon peak period.

The additional traffic volumes as a result of the Proposal will therefore be accommodated by the existing road network, with no external improvements required. The traffic impacts of the proposed development are therefore considered acceptable.

6. Design Aspects

6.1. Access

The development proposes two separate access driveways onto Segers Avenue. This includes a 6.0 metre wide combined entry / exit driveway serving the 1-5 Segers Avenue car park and an 8.0 metre wide combined entry / exit driveway serving the 7-17 Segers Avenue car park.

The width of the proposed access driveways complies with the minimum requirements of Table 3.1 of AS 2890.1 and importantly, both the access and internal parking arrangements will ensure that all car and truck entry and exit movements to the site occur in a forward direction.

Preliminary swept path analysis has been undertaken of the proposed vehicle access arrangements. The results are provided as **Appendix D** and indicate that satisfactory entry and exit manoeuvres can be achieved to the 7-17 Segers Avenue car park by an 8.8 metre MRV and achieved to the 1-5 Segers Avenue car park by a 6.4 metre SRV.

The access serving the 7-17 Segers Avenue car park is proposed at the south-eastern corner of the site, near the north-eastern corner of the Padstow Park Public School. This access is provided some 25 metres from an existing pedestrian (zebra) crossing across Segers Avenue, which forms the main pedestrian crossing for the Padstow Park Public School. The 25 metre length provides an acceptable offset to the pedestrian (zebra) crossing and will ensure that the access operates safely.

6.2. Internal Design

All internal car, and service vehicle facilities would be designed in accordance with the relevant requirements of AS 2890.1, AS 2890.2, AS 2890.3 and AS 2890.6.

7. Infrastructure Upgrade of the Pedestrian Laneway

A key feature of the Proposal is the urban renewal of the existing pedestrian link between Segers Avenue and Padstow Parade.

The existing laneway is provided with a total width of approximately 3 metres and includes a 1.4 metre wide footpath. A site inspection has confirmed that the laneway is highly utilised by the general public including school children and parents / carers as it provides a direct connection from Segers Avenue to Padstow Railway Station and the town centre. **Figure 6** provides an aerial appreciation of the laneway, whilst **Figure 7** shows the presentation of the laneway from Segers Avenue.

Figure 6: Aerial View of the Existing Pedestrian Laneway

Figure 7: Existing Pedestrian Laneway as Observed from Segers Avenue

It is evident from **Figures 6 and 7** that an upgrade of the existing laneway is warranted. Whilst the pedestrian thoroughfare is high, the laneway is very constrained and poorly lit and as such, accessibility and safety are compromised.

Under the Proposal, the laneway will be redesigned to allow for a more desirable and vibrant streetscape, presenting opportunities to open retail outlets, restaurants and cafes whilst also improving safety and security for the general public. **Figure 8** overleaf shows a conceptualised upgrade of the pedestrian link between Segers Avenue and Padstow Parade.

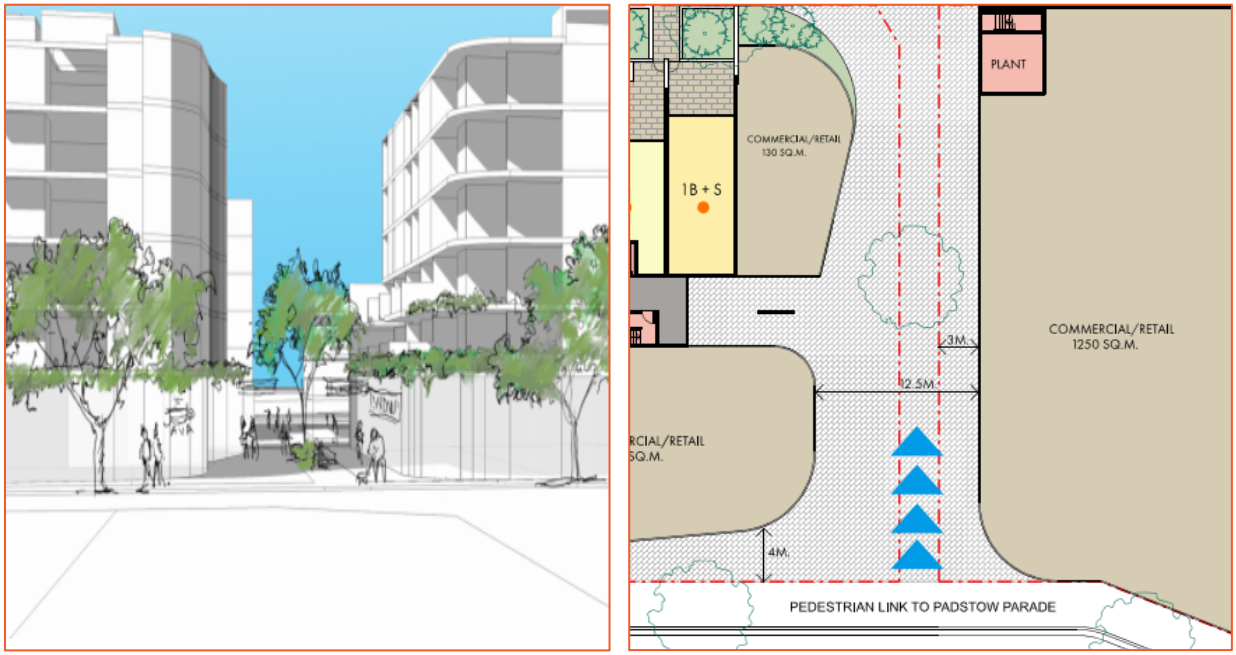


Figure 8: Concept Design of the Laneway Upgrade Between Segers Avenue and Padstow Parade

As can be seen from above, the Proposal will substantially widen the laneway to have a minimum width of approximately 8.5 metres. The upgrade will activate the area benefitting local residents and creating opportunities for commercial and retail growth, whilst also providing a superior outcome in terms of amenity, access and safety for all users including local residents, school children and parents/ carers.

8. Conclusions

In summary:

- PDC Consultants has been commissioned by Bayswater Property Group to undertake a Traffic Impact Assessment of a Planning Proposal relating to the site at 1-17 Segers Avenue, Padstow. The Planning Proposal seeks to permit a 6-storey mixed-use development, having the following characteristics:
    - 143 residential apartments;
    - 2,495m^2 commercial / retail GFA;
    - Basement level car parking providing a total of 234 car spaces;
    - Two access driveways onto Segers Avenue;
    - Urban renewal of the Segers Avenue and Padstow Parade pedestrian link.
- The traffic generation assessment confirms that the development will generate 78 vehicle trips / hour and 131 vehicle trips / hour during the AM and PM peak periods respectively. The net increase will be only 68 vehicle trips / hour and 121 vehicle trips / hour during AM and PM peak periods respectively, once the generation of the existing development is taken into consideration.
- The SIDRA modelling results confirm that the development will have minimal impacts on the performance of all identified key intersections. Indeed, the development will result in only a minor increase to average delays and degree of saturation, with no change to the existing Levels of Service during both peak periods. In this regard, all intersections will continue to operate satisfactorily with acceptable delays and spare capacity. The traffic impacts of the development are therefore considered acceptable and will be accommodated by the existing road network, with no external improvements.
- The development requires a minimum of 184 car parking spaces under the Bankstown DCP 2015. In response, the development provides a total of 234 car parking spaces which satisfies the requirements of the Bankstown DCP 2015 and ADG. The proposed car parking provision is considered acceptable and will ensure all car parking demands would be accommodated on-site.
- The proposed access and parking arrangements would operate satisfactorily and will be designed in accordance with AS 2890.1, AS 2890.2, AS 2890.3 and AS 2890.6. Further assessment of the design including detailed swept path analysis would be undertaken as part of any future development application.
- The existing 3.0 metre wide Segers Avenue – Padstow Parade laneway is very constrained and poorly lit and as such, accessibility and safety are compromised. The Proposal will involve the substantial widening of the laneway to have a minimum width of approximately 8.5 metres. The upgrade will activate the area benefitting local residents and creating opportunities for commercial and retail growth, whilst also providing a superior outcome in terms of amenity, access and safety for all users including local residents, school children and parents/ carers.

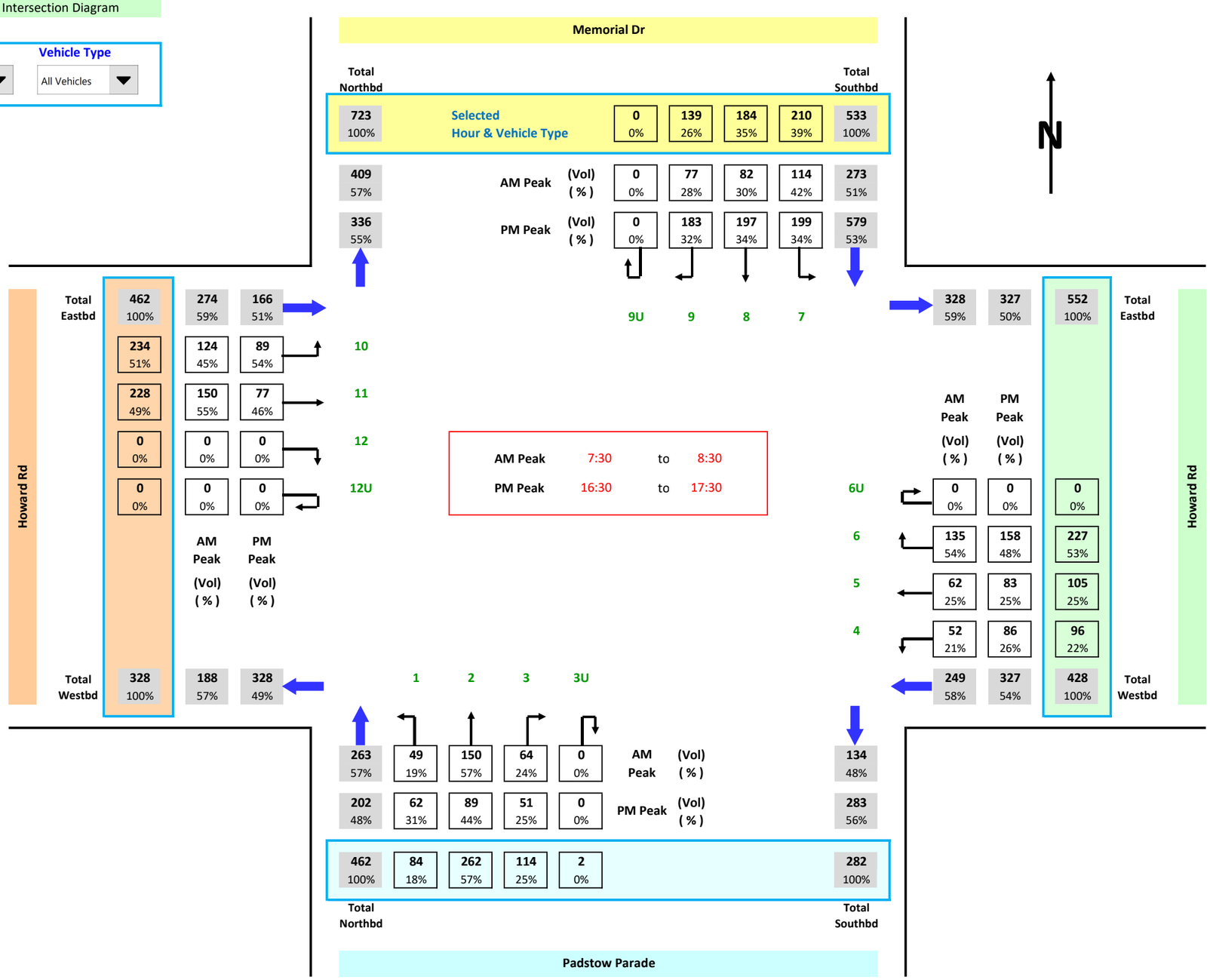
It is therefore concluded that the development is supportable on traffic planning grounds.

Appendix A

Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 3. Memorial Dr / Padstow Parade / Howard Rd

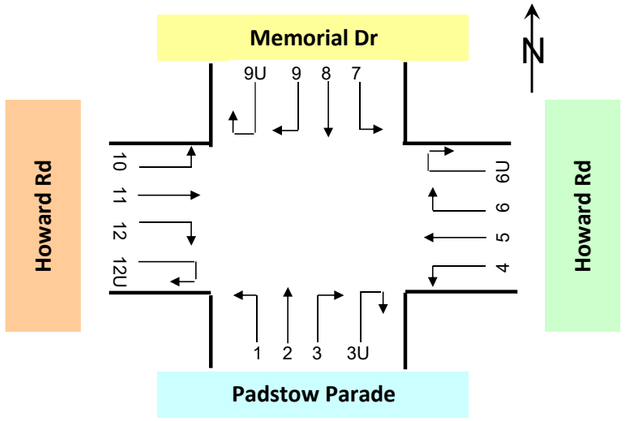
Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

Hour Starting AM Totals
Vehicle Type All Vehicles



Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 3. Memorial Dr / Padstow Parade / Howard Rd

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

	Approach	Padstow Parade			Howard Rd			Memorial Dr			Howard Rd			Grand Total
	Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
AM	7:30 to 8:30	257	6	**263**	225	24	**249**	245	28	**273**	234	40	**274**	**1,059**
PM	16:30 to 17:30	199	3	**202**	310	17	**327**	560	19	**579**	164	2	**166**	**1,274**

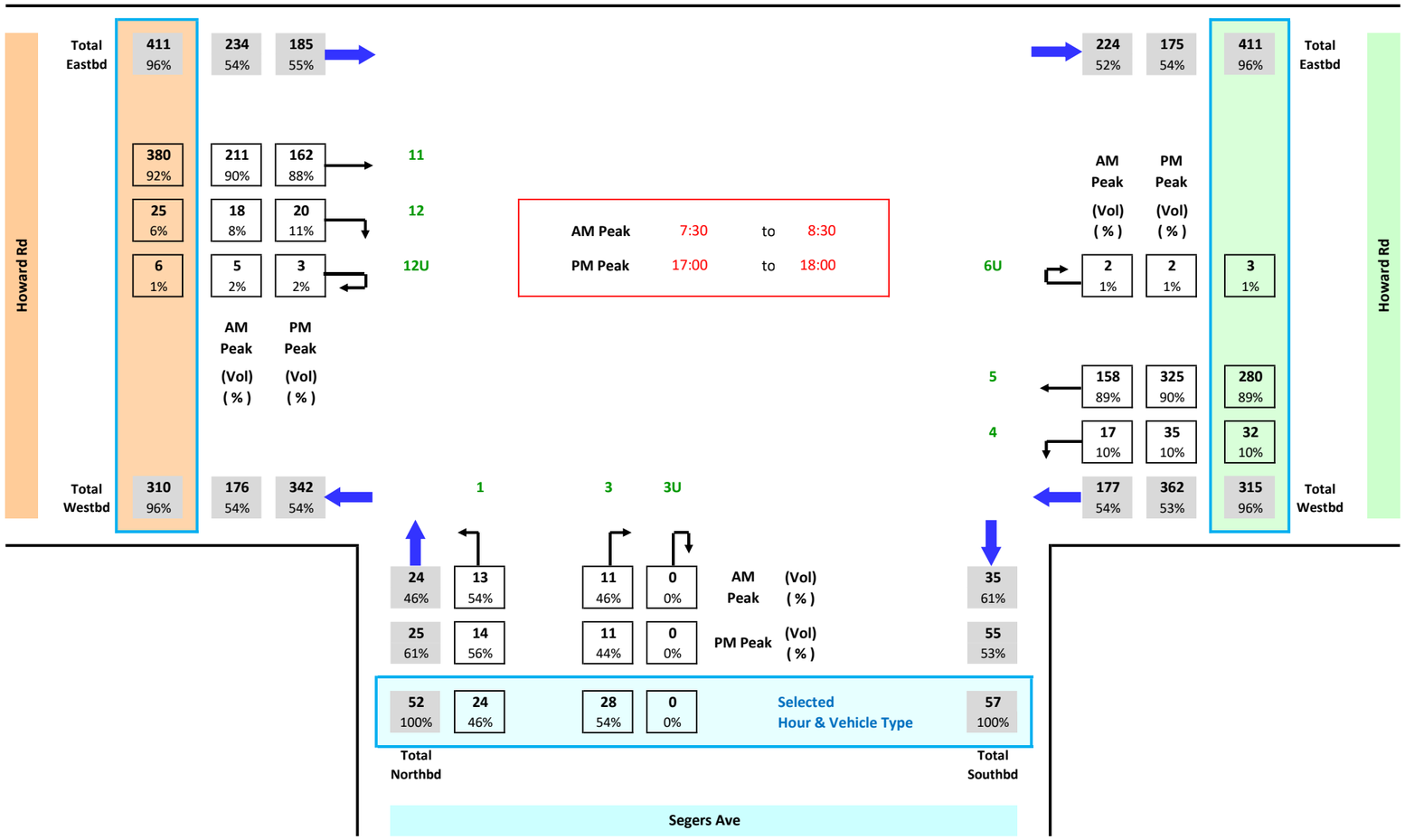
Approach	Padstow Parade			Howard Rd			Memorial Dr			Howard Rd			Grand Total
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
7:00 to 8:00	256	4	**260**	179	25	**204**	221	29	**250**	233	7	**240**	**954**
7:15 to 8:15	282	5	**287**	204	25	**229**	229	29	**258**	235	8	**243**	**1,017**
7:30 to 8:30	257	6	**263**	225	24	**249**	245	28	**273**	234	40	**274**	**1,059**
7:45 to 8:45	242	5	**247**	218	23	**241**	265	27	**292**	200	40	**240**	**1,020**
8:00 to 9:00	198	4	**202**	203	21	**224**	261	22	**283**	182	40	**222**	**931**
AM Totals	**454**	**8**	**462**	**382**	**46**	**428**	**482**	**51**	**533**	**415**	**47**	**462**	**1,885**
16:00 to 17:00	204	5	**209**	268	17	**285**	520	18	**538**	144	5	**149**	**1,181**
16:15 to 17:15	209	3	**212**	279	16	**295**	551	20	**571**	155	4	**159**	**1,237**
16:30 to 17:30	199	3	**202**	310	17	**327**	560	19	**579**	164	2	**166**	**1,274**
16:45 to 17:45	196	2	**198**	307	15	**322**	547	18	**565**	172	2	**174**	**1,259**
17:00 to 18:00	208	1	**209**	306	16	**322**	541	19	**560**	174	3	**177**	**1,268**
PM Totals	**412**	**6**	**418**	**574**	**33**	**607**	**1,061**	**37**	**1,098**	**318**	**8**	**326**	**2,449**

Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 1. Segers Ave / Howard Rd

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

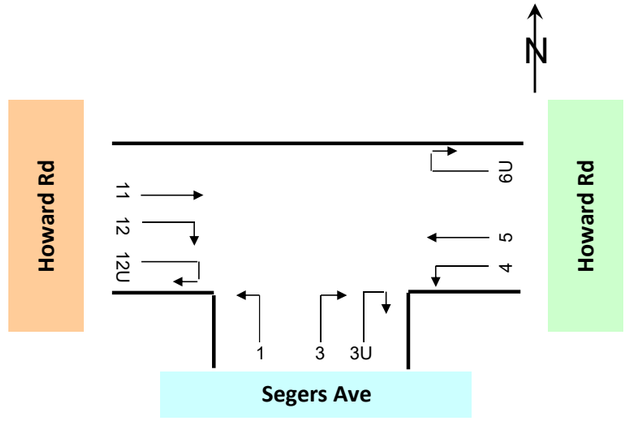
MATRIX Traffic and Transport Data

Hour Starting AM Totals
Vehicle Type Lights



Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 1. Segers Ave / Howard Rd

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

	Approach	Segers Ave			Howard Rd				Howard Rd			Grand Total
	Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total	
AM	7:30 to 8:30	24	0	**24**	177	12	**189**		234	11	**245**	**458**
PM	17:00 to 18:00	25	1	**26**	362	0	**362**		185	3	**188**	**576**

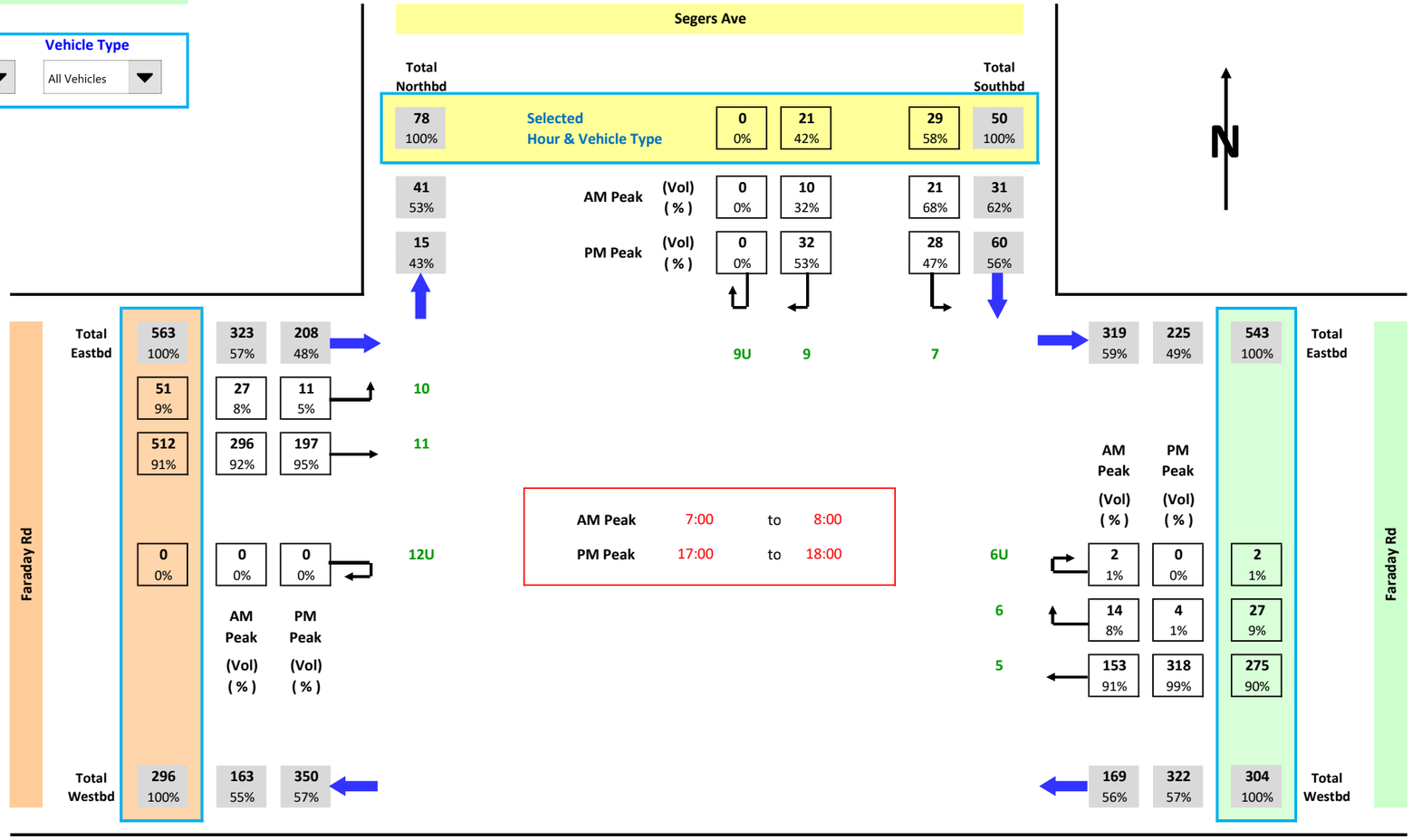
Approach	Segers Ave			Howard Rd				Howard Rd			Grand Total
Time Period	Lights	Heavies	Total	Lights	Heavies	Total		Lights	Heavies	Total	
7:00 to 8:00	26	0	**26**	154	5	**159**		229	7	**236**	**421**
7:15 to 8:15	24	0	**24**	168	9	**177**		241	8	**249**	**450**
7:30 to 8:30	24	0	**24**	177	12	**189**		234	11	**245**	**458**
7:45 to 8:45	27	0	**27**	174	11	**185**		197	10	**207**	**419**
8:00 to 9:00	26	0	**26**	161	8	**169**		182	12	**194**	**389**
AM Totals	**52**	**0**	**52**	**315**	**13**	**328**		**411**	**19**	**430**	**810**
16:00 to 17:00	15	0	**15**	311	6	**317**		147	4	**151**	**483**
16:15 to 17:15	18	0	**18**	310	5	**315**		156	3	**159**	**492**
16:30 to 17:30	25	1	**26**	324	3	**327**		172	2	**174**	**527**
16:45 to 17:45	27	1	**28**	338	1	**339**		181	2	**183**	**550**
17:00 to 18:00	25	1	**26**	362	0	**362**		185	3	**188**	**576**
PM Totals	**40**	**1**	**41**	**673**	**6**	**679**		**332**	**7**	**339**	**1,059**

Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 2. Segers Ave / Faraday Rd

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

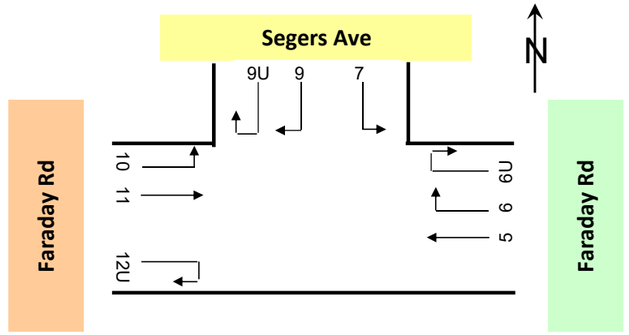
MATRIX Traffic and Transport Data

Hour Starting: AM Totals
Vehicle Type: All Vehicles



Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 2. Segers Ave / Faraday Rd

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

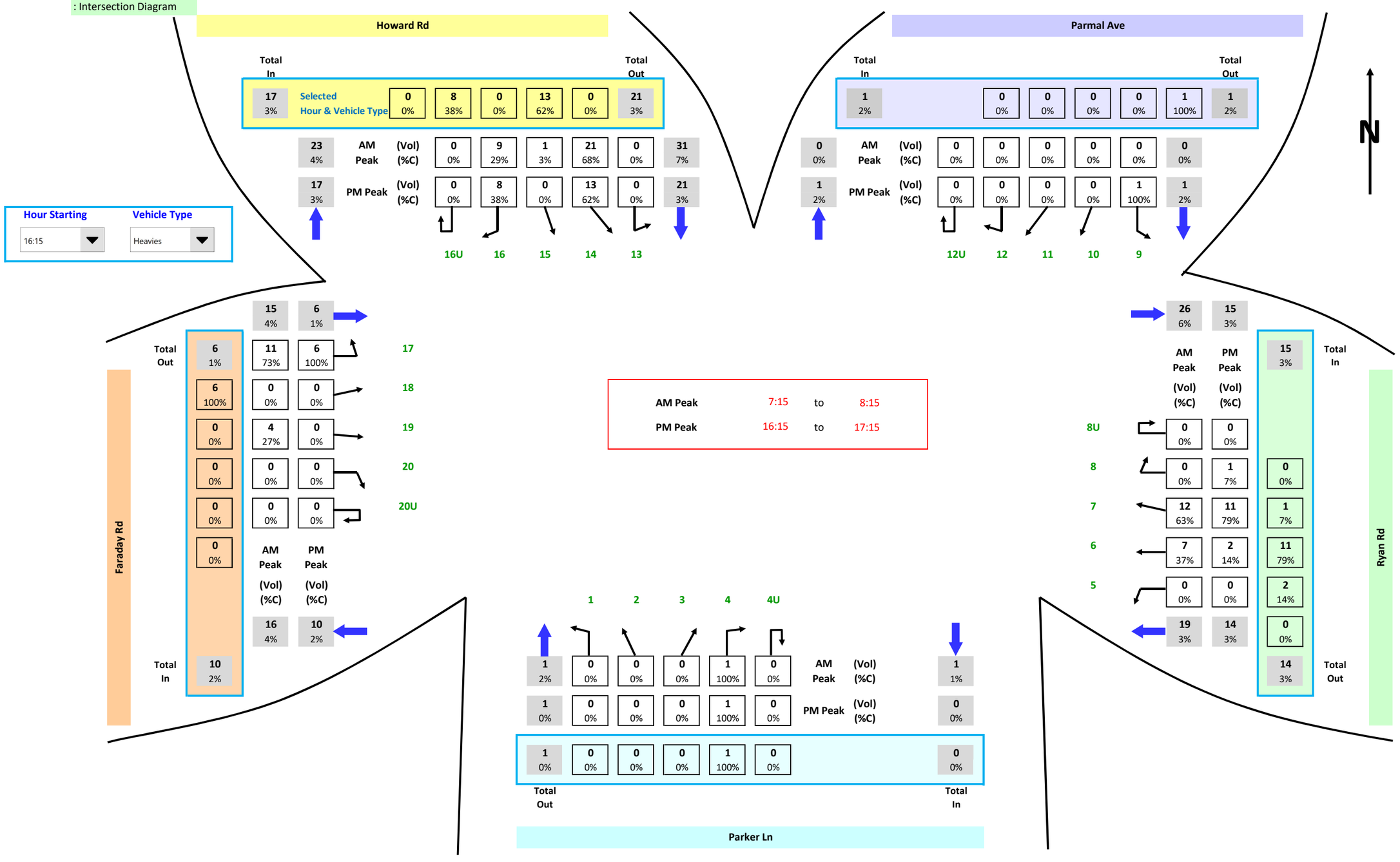
	Approach			Faraday Rd			Segers Ave			Faraday Rd			Grand Total
	Time Period			Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
AM	7:00	to	8:00	155	14	**169**	29	2	**31**	315	8	**323**	**523**
PM	17:00	to	18:00	311	11	**322**	60	0	**60**	201	7	**208**	**590**

Approach			Faraday Rd			Segers Ave			Faraday Rd			Grand Total
Time Period			Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
7:00	to	8:00	155	14	**169**	29	2	**31**	315	8	**323**	**523**
7:15	to	8:15	162	14	**176**	33	1	**34**	291	10	**301**	**511**
7:30	to	8:30	164	14	**178**	32	1	**33**	278	11	**289**	**500**
7:45	to	8:45	141	12	**153**	25	0	**25**	250	11	**261**	**439**
8:00	to	9:00	122	13	**135**	19	0	**19**	228	12	**240**	**394**
AM Totals			**277**	**27**	**304**	**48**	**2**	**50**	**543**	**20**	**563**	**917**
16:00	to	17:00	236	10	**246**	47	0	**47**	219	8	**227**	**520**
16:15	to	17:15	253	8	**261**	49	0	**49**	222	7	**229**	**539**
16:30	to	17:30	292	10	**302**	52	0	**52**	218	7	**225**	**579**
16:45	to	17:45	294	13	**307**	61	0	**61**	200	7	**207**	**575**
17:00	to	18:00	311	11	**322**	60	0	**60**	201	7	**208**	**590**
PM Totals			**547**	**21**	**568**	**107**	**0**	**107**	**420**	**15**	**435**	**1,110**

Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 4. Howard Rd / Ryan Rd / Parmal Ave / Parker Ln / Faraday Rd

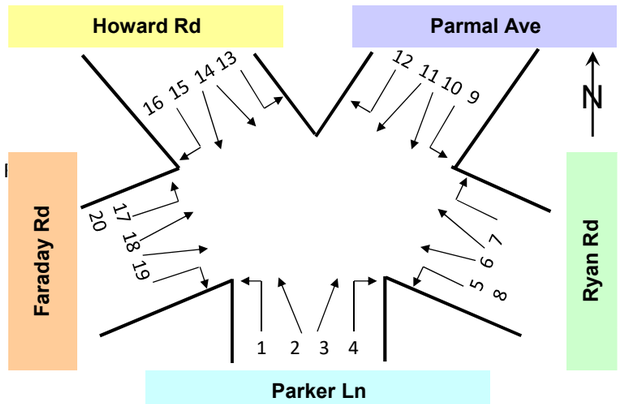
Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Intersection Diagram

MATRIX Traffic and Transport Data



Job No. : N4433
Client : PDC
Suburb : Padstow
Location : 4. Howard Rd / Ryan Rd / Parmal Ave / Parker Ln / Faraday

Day/Date : Tues, 21st August 2018
Weather : Fine
Description : Classified Intersection Count
: Peak Hour Summary



MATRIX Traffic and Transport Data

Approach		Parker Ln			Ryan Rd			Parmal Ave			Howard Rd			Faraday Rd			Grand Total
	Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
AM	7:15 to 8:15	25	1	**26**	296	19	**315**	12	0	**12**	234	31	**265**	181	15	**196**	**814**
PM	16:15 to 17:15	197	1	**198**	271	14	**285**	26	1	**27**	360	21	**381**	209	6	**215**	**1,106**

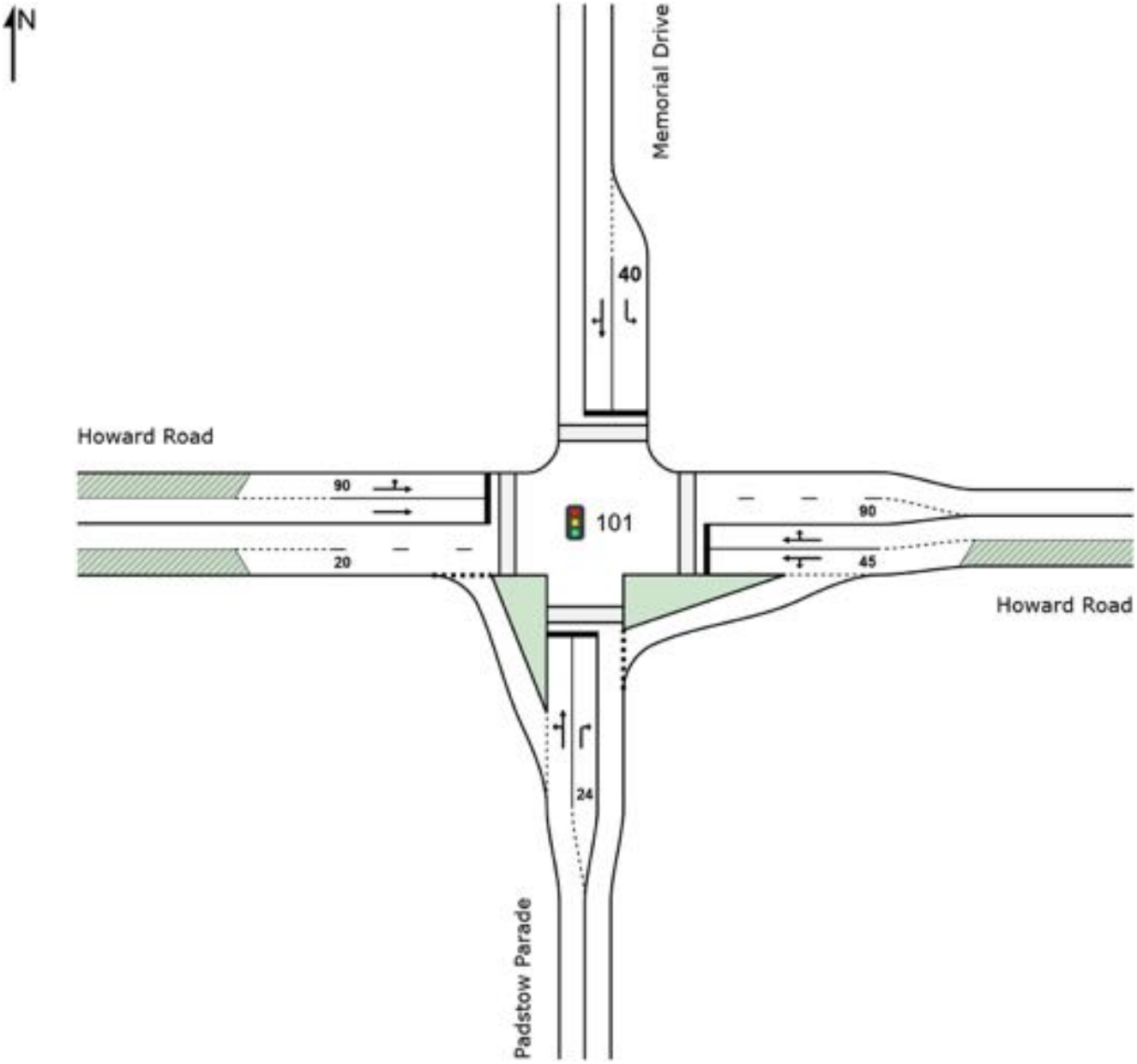
Approach	Parker Ln			Ryan Rd			Parmal Ave			Howard Rd			Faraday Rd			Grand Total
Time Period	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	Lights	Heavies	Total	
7:00 to 8:00	16	1	**17**	288	21	**309**	11	0	**11**	208	30	**238**	200	14	**214**	**789**
7:15 to 8:15	25	1	**26**	296	19	**315**	12	0	**12**	234	31	**265**	181	15	**196**	**814**
7:30 to 8:30	27	1	**28**	292	19	**311**	13	0	**13**	228	32	**260**	180	11	**191**	**803**
7:45 to 8:45	31	2	**33**	269	15	**284**	12	0	**12**	211	28	**239**	183	11	**194**	**762**
8:00 to 9:00	27	2	**29**	273	16	**289**	10	0	**10**	193	25	**218**	180	6	**186**	**732**
AM Totals	**43**	**3**	**46**	**561**	**37**	**598**	**21**	**0**	**21**	**401**	**55**	**456**	**380**	**20**	**400**	**1,521**
16:00 to 17:00	182	1	**183**	255	16	**271**	20	1	**21**	334	21	**355**	212	7	**219**	**1,049**
16:15 to 17:15	197	1	**198**	271	14	**285**	26	1	**27**	360	21	**381**	209	6	**215**	**1,106**
16:30 to 17:30	189	0	**189**	253	14	**267**	26	0	**26**	364	19	**383**	221	6	**227**	**1,092**
16:45 to 17:45	181	0	**181**	232	10	**242**	27	0	**27**	344	20	**364**	210	7	**217**	**1,031**
17:00 to 18:00	168	1	**169**	233	12	**245**	25	0	**25**	360	22	**382**	203	6	**209**	**1,030**
PM Totals	**350**	**2**	**352**	**488**	**28**	**516**	**45**	**1**	**46**	**694**	**43**	**737**	**415**	**13**	**428**	**2,079**

Appendix B

SITE LAYOUT

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde AM EX]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: AM
Site Category: (None)
Signals - Fixed Time Isolated



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:25:40 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde AM EX]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: AM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 75 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Padstow Parade												
1	L2	52	4.1	0.485	25.3	LOS B	5.8	41.1	0.91	0.78	1.02	30.0
2	T1	158	1.3	0.485	22.1	LOS B	5.8	41.1	0.91	0.78	1.02	29.5
3	R2	67	3.1	0.175	30.0	LOS C	2.1	14.8	0.85	0.73	0.85	27.2
Approach		277	2.3	0.485	24.7	LOS B	5.8	41.1	0.90	0.77	0.98	29.0
East: Howard Road												
4	L2	55	5.8	0.128	13.1	LOS A	1.7	12.5	0.64	0.59	0.64	34.5
5	T1	65	6.5	0.609	18.0	LOS B	5.9	45.5	0.76	0.69	0.78	32.8
6	R2	142	12.6	0.609	33.4	LOS C	5.9	45.5	0.95	0.83	0.98	29.5
Approach		262	9.6	0.609	25.3	LOS B	5.9	45.5	0.84	0.74	0.86	31.0
North: Memorial Drive												
7	L2	120	15.8	0.423	35.4	LOS C	4.1	32.9	0.94	0.77	0.94	28.9
8	T1	86	6.1	0.425	28.3	LOS B	5.5	40.3	0.91	0.76	0.91	27.3
9	R2	81	6.5	0.425	31.8	LOS C	5.5	40.3	0.91	0.76	0.91	30.1
Approach		287	10.3	0.425	32.3	LOS C	5.5	40.3	0.93	0.77	0.93	28.8
West: Howard Road												
10	L2	131	0.8	0.364	26.4	LOS B	5.6	41.7	0.84	0.74	0.84	31.3
11	T1	158	26.0	0.364	20.7	LOS B	5.6	41.7	0.78	0.65	0.78	32.3
Approach		288	14.6	0.364	23.3	LOS B	5.6	41.7	0.80	0.69	0.80	31.9
All Vehicles		1115	9.3	0.609	26.4	LOS B	5.9	45.5	0.87	0.74	0.89	30.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

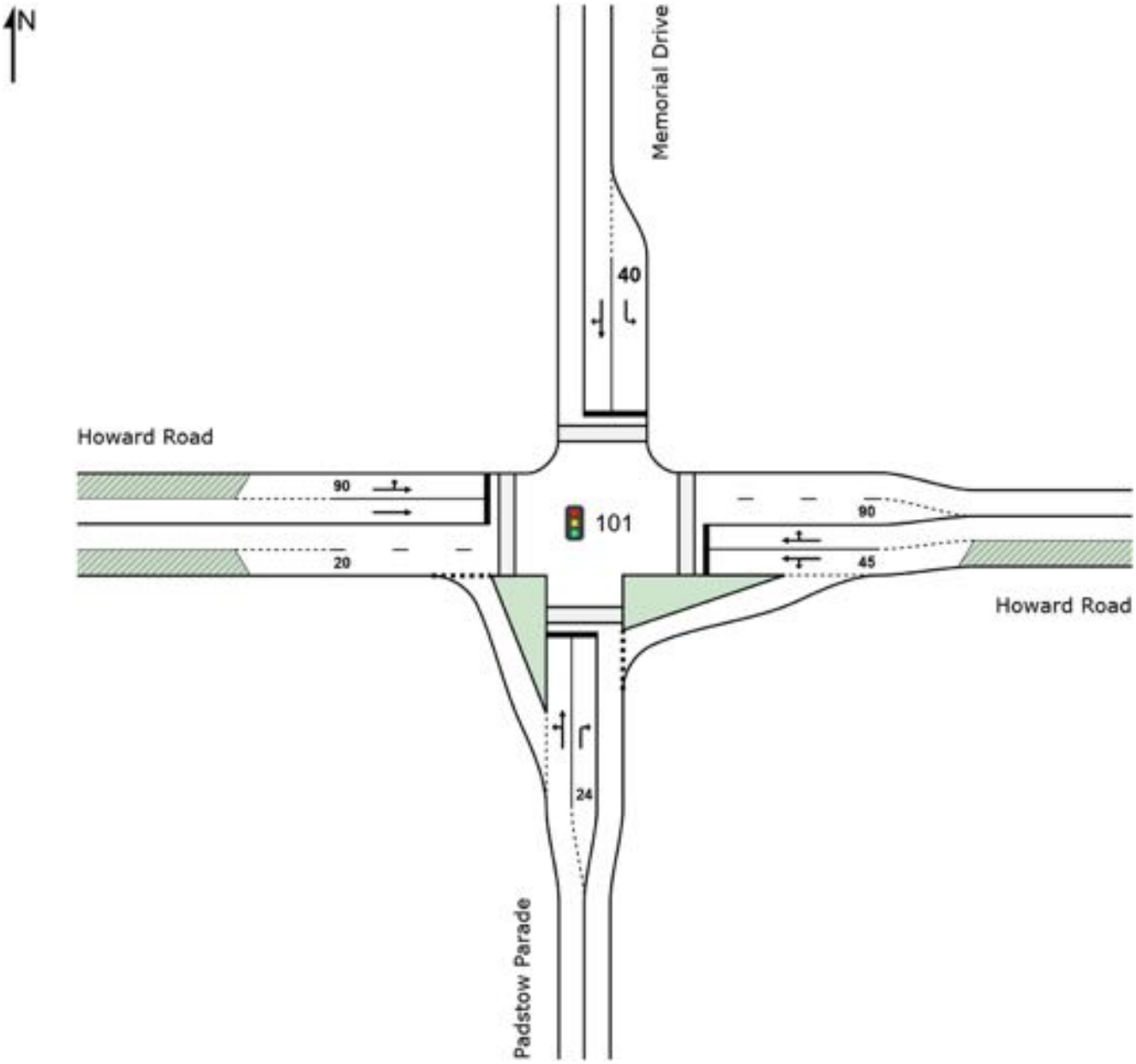
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P2	East Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P3	North Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P4	West Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
All Pedestrians		842	32.0	LOS D			0.93	0.93

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

SITE LAYOUT

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde AM EX + DEV]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: AM
Site Category: (None)
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde AM EX + DEV]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: AM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 75 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Padstow Parade												
1	L2	56	3.8	0.492	25.2	LOS B	5.8	41.4	0.92	0.79	1.02	30.6
2	T1	158	1.3	0.492	22.0	LOS B	5.8	41.4	0.92	0.79	1.02	29.6
3	R2	67	3.1	0.175	30.0	LOS C	2.1	14.8	0.85	0.73	0.85	27.2
Approach		281	2.2	0.492	24.6	LOS B	5.8	41.4	0.90	0.77	0.98	29.2
East: Howard Road												
4	L2	55	5.8	0.134	13.8	LOS A	1.8	13.3	0.65	0.60	0.65	34.7
5	T1	69	6.1	0.635	18.4	LOS B	6.1	46.6	0.77	0.70	0.80	32.8
6	R2	142	12.6	0.635	34.1	LOS C	6.1	46.6	0.95	0.85	1.02	29.4
Approach		266	9.5	0.635	25.8	LOS B	6.1	46.6	0.84	0.76	0.88	31.0
North: Memorial Drive												
7	L2	126	15.0	0.443	35.7	LOS C	4.4	34.5	0.95	0.78	0.95	29.3
8	T1	86	6.1	0.425	28.3	LOS B	5.5	40.3	0.91	0.76	0.91	27.3
9	R2	81	6.5	0.425	31.8	LOS C	5.5	40.3	0.91	0.76	0.91	30.1
Approach		294	10.0	0.443	32.5	LOS C	5.5	40.3	0.93	0.77	0.93	29.1
West: Howard Road												
10	L2	142	0.7	0.391	26.9	LOS B	6.1	45.0	0.84	0.75	0.84	32.4
11	T1	169	24.2	0.391	20.8	LOS B	6.1	45.0	0.78	0.66	0.78	32.6
Approach		312	13.5	0.391	23.6	LOS B	6.1	45.0	0.81	0.70	0.81	32.5
All Vehicles		1153	8.9	0.635	26.6	LOS B	6.1	46.6	0.87	0.75	0.90	30.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

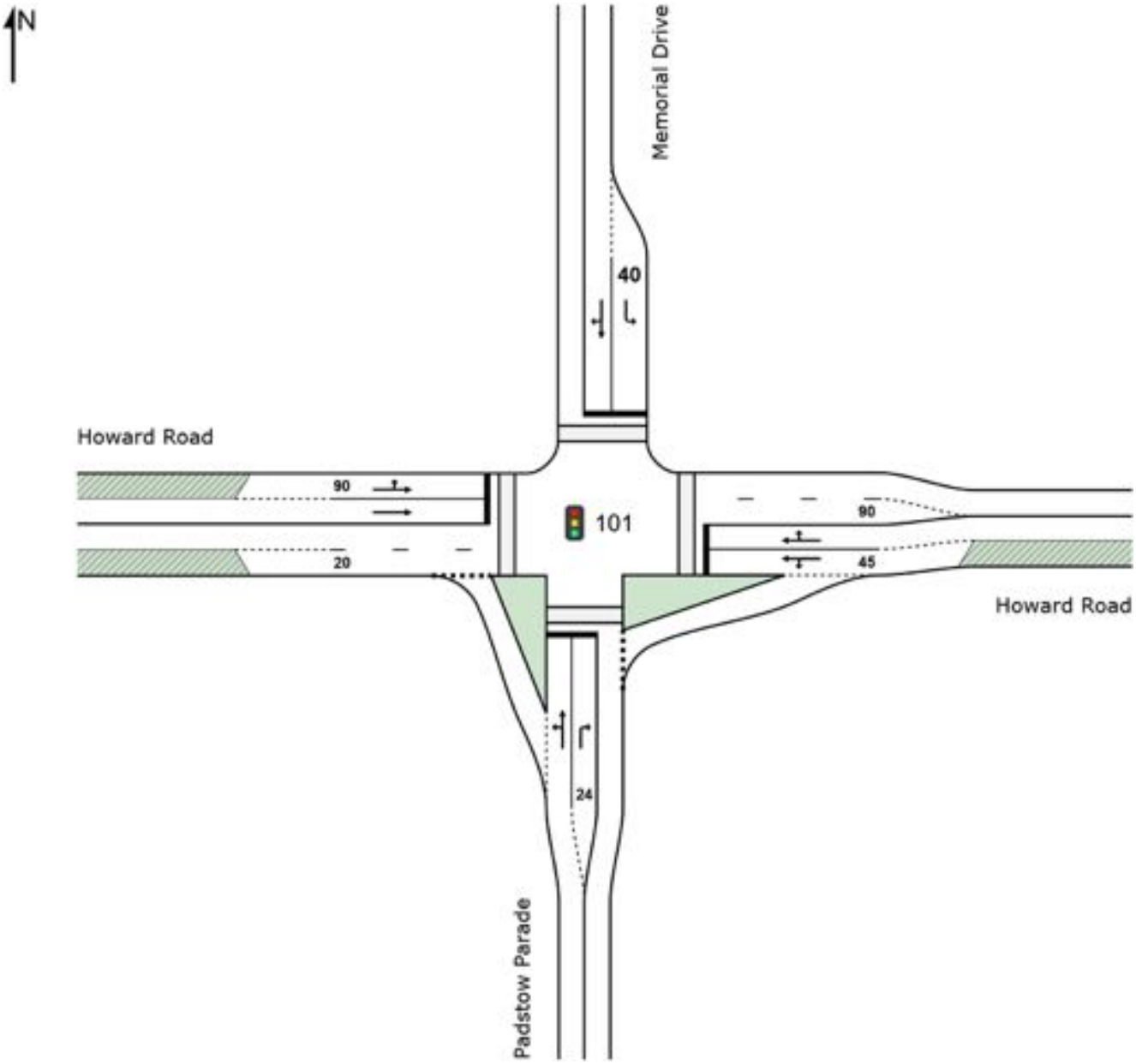
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P2	East Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P3	North Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
P4	West Full Crossing	211	32.0	LOS D	0.4	0.4	0.93	0.93
All Pedestrians		842	32.0	LOS D			0.93	0.93

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

SITE LAYOUT

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde PM EX]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: PM
Site Category: (None)
Signals - Fixed Time Isolated



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:25:51 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde PM EX]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing
Period: PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Padstow Parade												
1	L2	65	0.0	0.363	19.0	LOS B	3.5	24.4	0.88	0.73	0.88	32.2
2	T1	94	0.0	0.363	15.8	LOS B	3.5	24.4	0.88	0.73	0.88	31.6
3	R2	54	5.9	0.151	32.6	LOS C	1.8	13.0	0.86	0.72	0.86	26.5
Approach		213	1.5	0.363	21.0	LOS B	3.5	24.4	0.87	0.73	0.87	30.3
East: Howard Road												
4	L2	91	1.2	0.162	11.5	LOS A	2.0	14.1	0.62	0.62	0.62	35.0
5	T1	87	0.0	0.769	26.9	LOS B	9.2	68.7	0.86	0.84	0.99	30.3
6	R2	166	10.1	0.769	40.6	LOS C	9.2	68.7	1.00	0.96	1.20	28.0
Approach		344	5.2	0.769	29.5	LOS C	9.2	68.7	0.86	0.84	0.99	29.8
North: Memorial Drive												
7	L2	209	7.5	0.447	31.3	LOS C	7.1	52.6	0.89	0.79	0.89	29.9
8	T1	207	0.5	0.826	33.2	LOS C	16.0	112.7	0.94	0.96	1.15	25.9
9	R2	193	1.6	0.826	36.7	LOS C	16.0	112.7	0.94	0.96	1.15	28.9
Approach		609	3.3	0.826	33.7	LOS C	16.0	112.7	0.93	0.90	1.06	28.4
West: Howard Road												
10	L2	94	0.0	0.255	30.6	LOS C	3.5	24.6	0.85	0.74	0.85	30.2
11	T1	81	2.6	0.255	24.2	LOS B	3.5	24.6	0.80	0.63	0.80	31.5
Approach		175	1.2	0.255	27.7	LOS B	3.5	24.6	0.83	0.69	0.83	30.8
All Vehicles		1341	3.2	0.826	29.8	LOS C	16.0	112.7	0.89	0.83	0.98	29.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

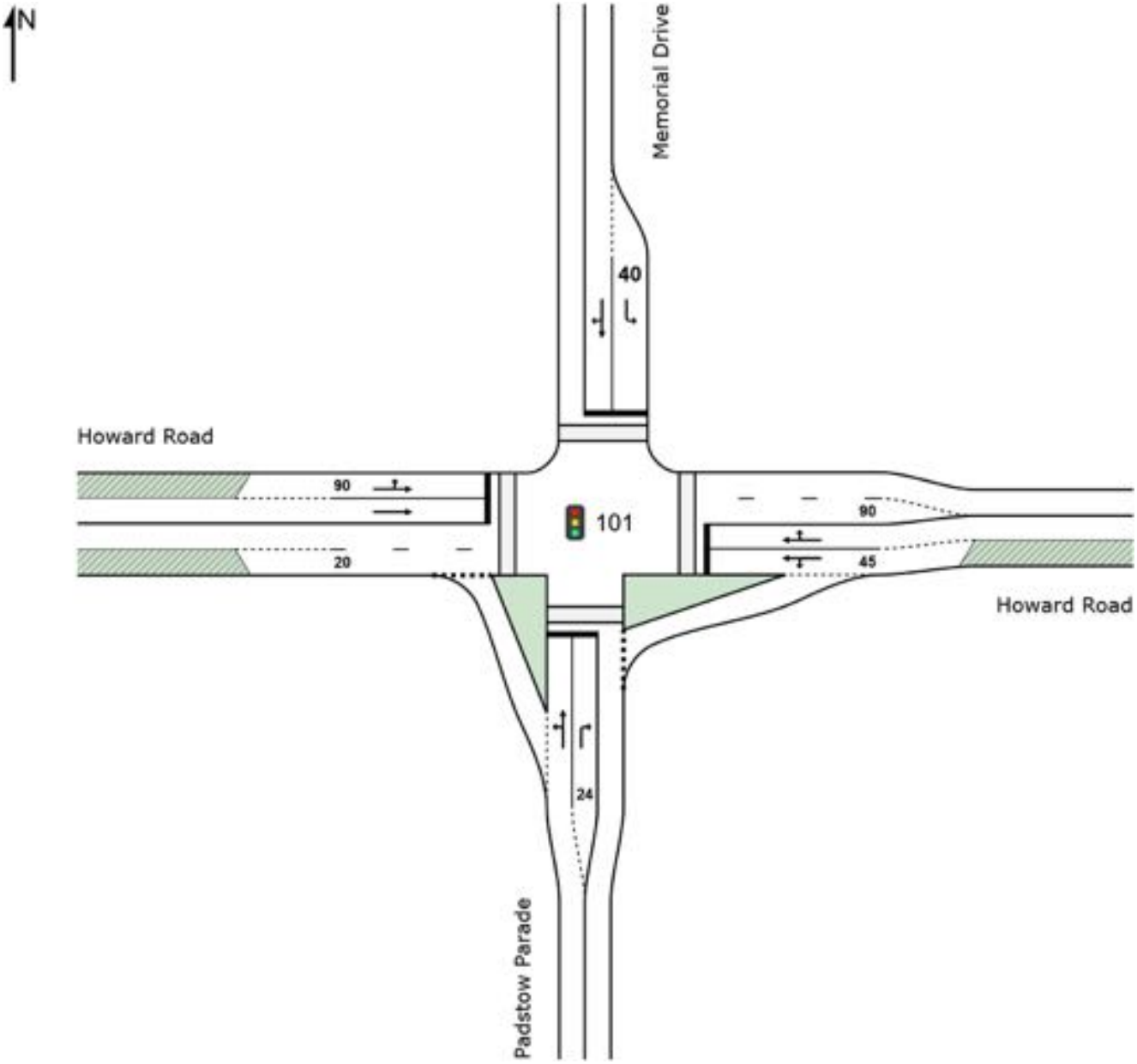
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P2	East Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P3	North Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P4	West Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
All Pedestrians		842	34.5	LOS D			0.93	0.93

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

SITE LAYOUT

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde PM EX + DEV]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing + Development
Period: PM
Site Category: (None)
Signals - Fixed Time Isolated



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Memorial Dr x Padstow Pde PM EX + DEV]

Intersection: Howard Road x Memorial Drive x Padstow Parade
Scenario: Existing + Development
Period: PM
Site Category: (None)
Signals - Fixed Time Isolated Cycle Time = 80 seconds (Site Practical Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Padstow Parade												
1	L2	69	0.0	0.369	18.8	LOS B	3.5	24.5	0.88	0.73	0.88	32.8
2	T1	94	0.0	0.369	15.6	LOS B	3.5	24.5	0.88	0.73	0.88	31.8
3	R2	54	5.9	0.151	32.6	LOS C	1.8	13.0	0.86	0.72	0.86	26.5
Approach		217	1.5	0.369	20.8	LOS B	3.5	24.5	0.87	0.73	0.87	30.6
East: Howard Road												
4	L2	91	1.2	0.171	12.2	LOS A	2.1	14.9	0.64	0.62	0.64	35.5
5	T1	96	0.0	0.810	28.8	LOS C	9.8	73.2	0.87	0.87	1.05	30.1
6	R2	166	10.1	0.810	43.4	LOS D	9.8	73.2	1.00	1.01	1.28	27.4
Approach		353	5.1	0.810	31.4	LOS C	9.8	73.2	0.87	0.87	1.05	29.5
North: Memorial Drive												
7	L2	222	7.1	0.473	31.7	LOS C	7.5	56.0	0.90	0.79	0.90	30.4
8	T1	207	0.5	0.834	33.9	LOS C	16.1	113.9	0.94	0.97	1.17	25.8
9	R2	193	1.6	0.834	37.4	LOS C	16.1	113.9	0.94	0.97	1.17	28.8
Approach		622	3.2	0.834	34.2	LOS C	16.1	113.9	0.93	0.91	1.07	28.5
West: Howard Road												
10	L2	102	0.0	0.279	31.1	LOS C	3.9	27.1	0.86	0.75	0.86	31.2
11	T1	89	2.4	0.279	24.5	LOS B	3.9	27.1	0.80	0.64	0.80	31.6
Approach		192	1.1	0.279	28.0	LOS B	3.9	27.1	0.83	0.70	0.83	31.4
All Vehicles		1383	3.1	0.834	30.5	LOS C	16.1	113.9	0.89	0.84	1.00	29.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians

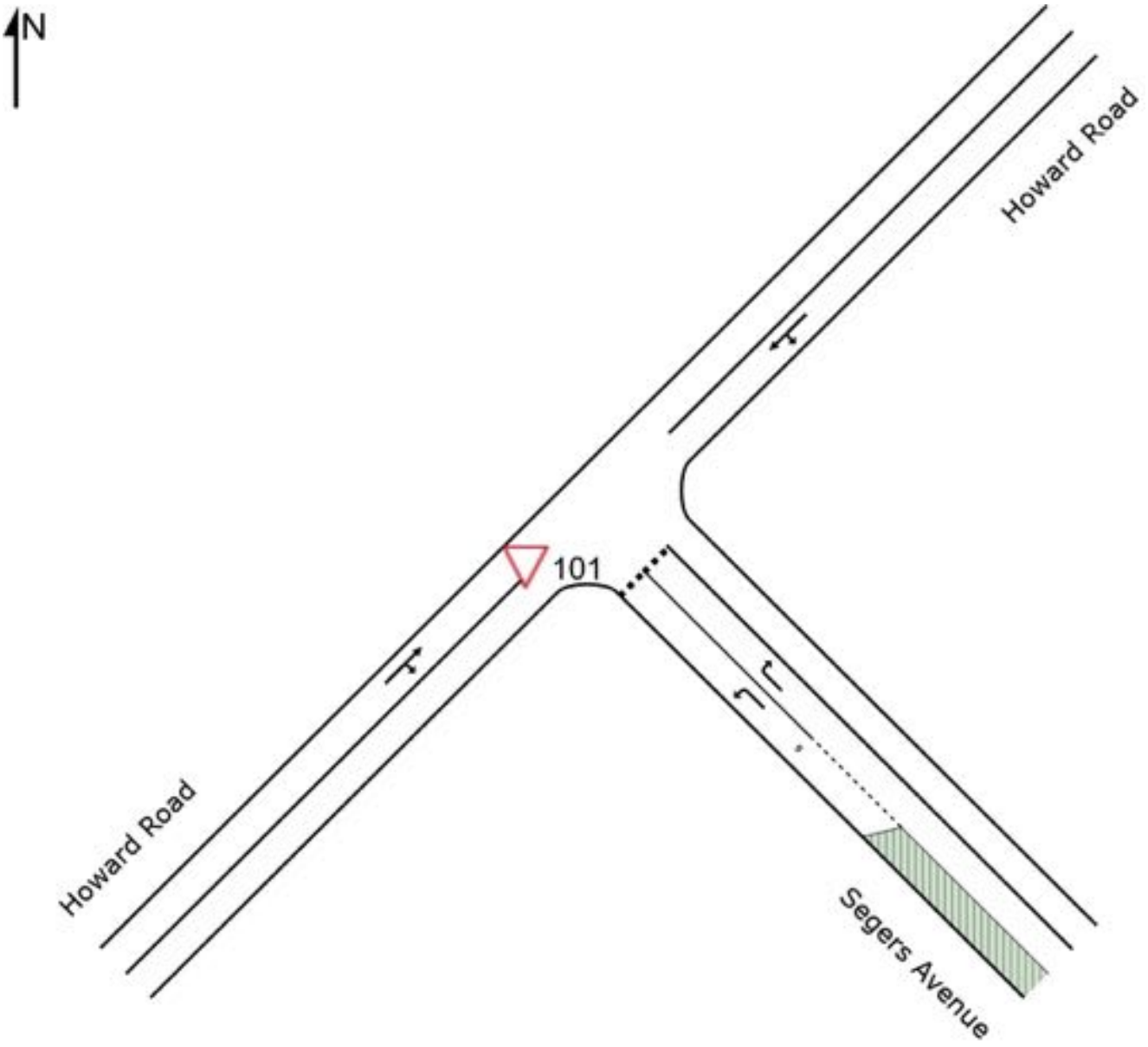
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate
P1	South Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P2	East Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P3	North Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
P4	West Full Crossing	211	34.5	LOS D	0.4	0.4	0.93	0.93
All Pedestrians		842	34.5	LOS D			0.93	0.93

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

SITE LAYOUT

Site: 101 [Howard Rd x Segers Ave AM EX]

Interesection: Howard Road / Segers Avenue
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:32:43 AM
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MOVEMENT SUMMARY

Site: 101 [Howard Rd x Segers Ave AM EX]

Interesection: Howard Road / Segers Avenue
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

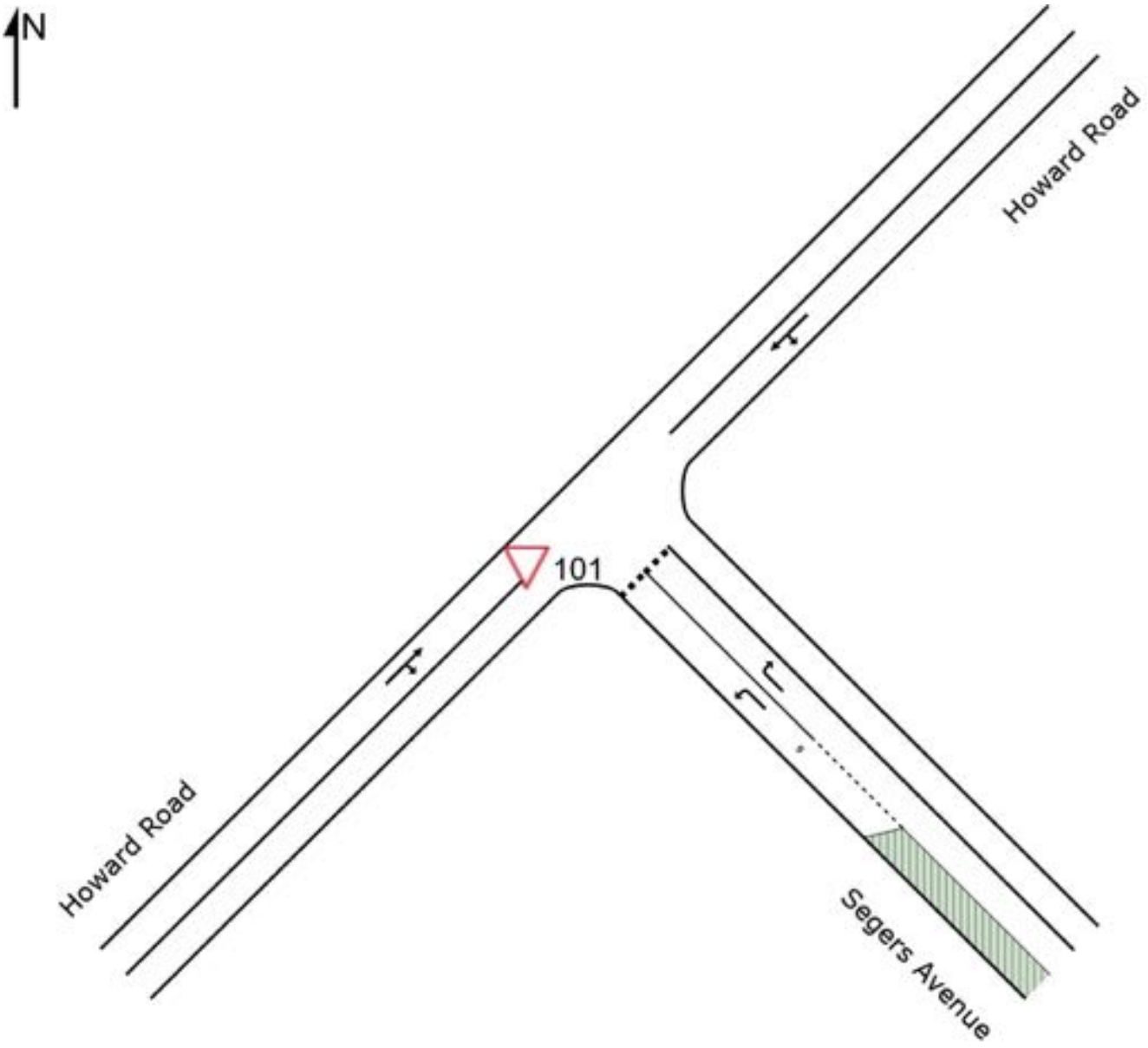
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Segers Avenue												
7	L2	14	0.0	0.010	5.0	LOS A	0.0	0.3	0.25	0.49	0.25	40.3
9	R2	13	8.3	0.015	6.5	LOS A	0.0	0.4	0.40	0.61	0.40	39.0
Approach		26	4.0	0.015	5.7	LOS A	0.0	0.4	0.32	0.55	0.32	39.9
NorthEast: Howard Road												
10	L2	33	38.7	0.108	3.6	LOS A	0.0	0.0	0.00	0.07	0.00	39.7
11	T1	166	0.0	0.108	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	39.7
Approach		199	6.3	0.108	0.6	NA	0.0	0.0	0.00	0.07	0.00	39.7
SouthWest: Howard Road												
5	T1	234	5.0	0.139	0.1	LOS A	0.2	1.6	0.08	0.05	0.08	39.6
6	R2	24	0.0	0.139	4.2	LOS A	0.2	1.6	0.08	0.05	0.08	42.2
Approach		258	4.5	0.139	0.5	NA	0.2	1.6	0.08	0.05	0.08	39.8
All Vehicles		483	5.2	0.139	0.8	NA	0.2	1.6	0.06	0.08	0.06	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Segers Ave AM EX + DEV]

Interesection: Howard Road / Segers Avenue
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



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Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Howard Rd x Segers Ave AM EX + DEV]

Interesection: Howard Road / Segers Avenue
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

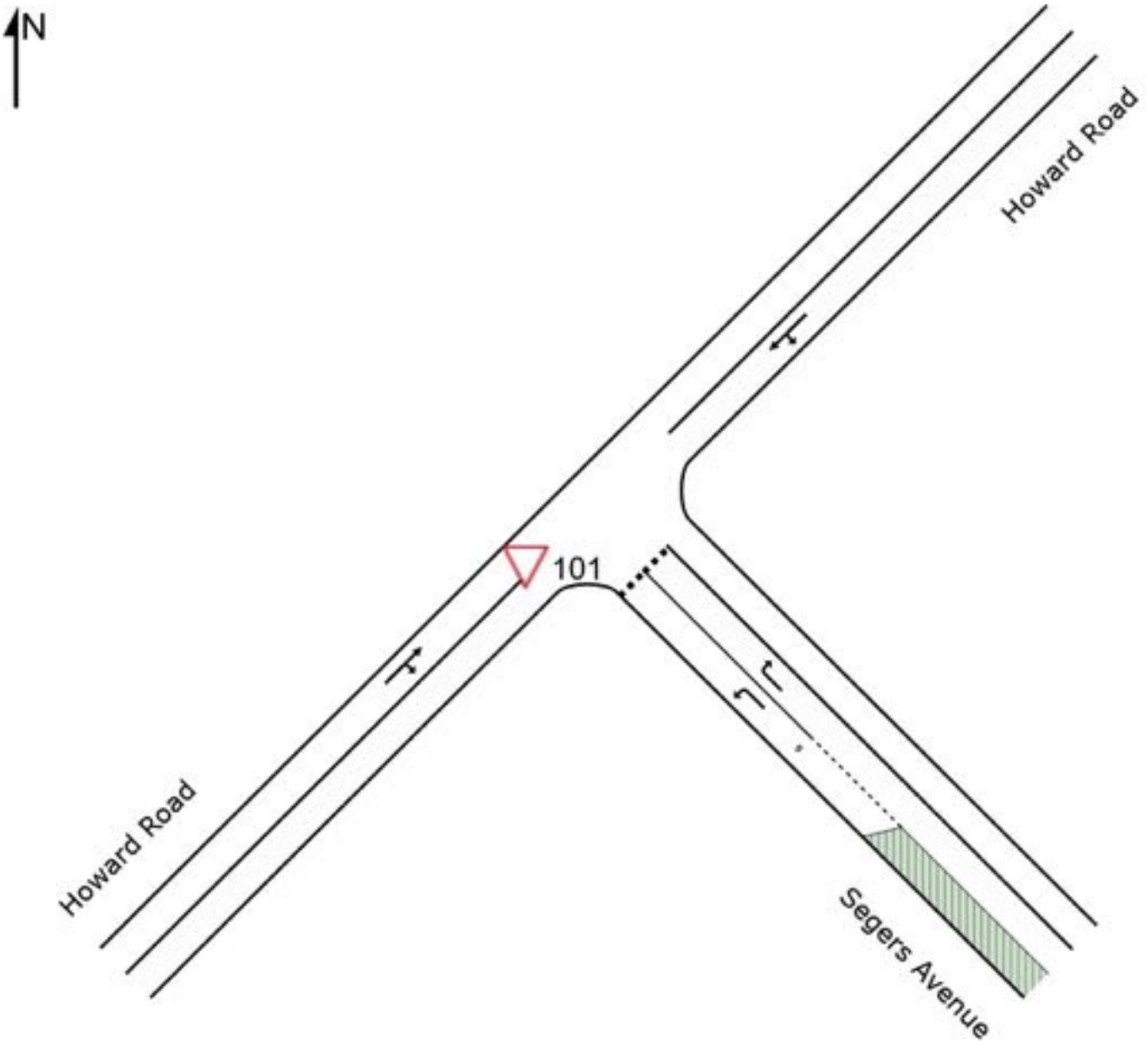
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Segers Avenue												
7	L2	42	0.0	0.029	5.7	LOS A	0.1	0.9	0.25	0.53	0.25	48.2
9	R2	35	3.0	0.042	7.1	LOS A	0.1	1.0	0.41	0.66	0.41	42.7
Approach		77	1.4	0.042	6.3	LOS A	0.1	1.0	0.33	0.59	0.33	46.3
NorthEast: Howard Road												
10	L2	47	26.7	0.116	3.7	LOS A	0.0	0.0	0.00	0.13	0.00	40.5
11	T1	166	0.0	0.116	0.2	LOS A	0.0	0.0	0.00	0.13	0.00	41.7
Approach		214	5.9	0.116	1.0	NA	0.0	0.0	0.00	0.13	0.00	41.5
SouthWest: Howard Road												
5	T1	234	5.0	0.148	0.3	LOS A	0.3	2.4	0.12	0.09	0.12	40.0
6	R2	38	0.0	0.148	4.4	LOS A	0.3	2.4	0.12	0.09	0.12	43.3
Approach		272	4.3	0.148	0.9	NA	0.3	2.4	0.12	0.09	0.12	40.5
All Vehicles		562	4.5	0.148	1.7	NA	0.3	2.4	0.10	0.18	0.10	41.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Segers Ave PM EX]

Interesection: Howard Road / Segers Avenue
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Segers Ave PM EX]

Interesection: Howard Road / Segers Avenue
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

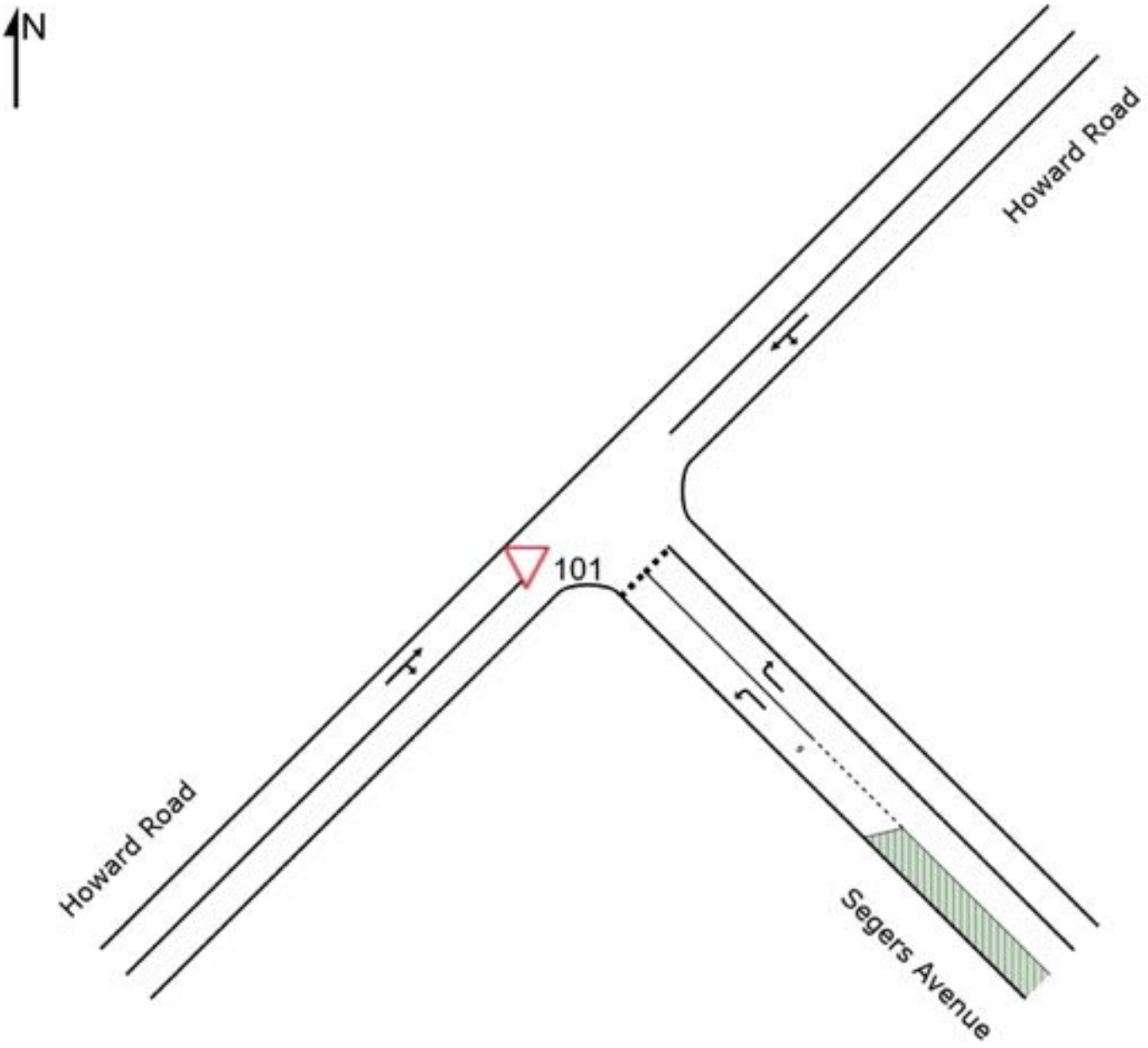
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Segers Avenue												
7	L2	15	0.0	0.012	5.7	LOS A	0.1	0.4	0.38	0.53	0.38	40.0
9	R2	13	8.3	0.017	7.0	LOS A	0.1	0.4	0.45	0.64	0.45	38.4
Approach		27	3.8	0.017	6.3	LOS A	0.1	0.4	0.41	0.58	0.41	39.5
NorthEast: Howard Road												
10	L2	39	0.0	0.196	3.4	LOS A	0.0	0.0	0.00	0.05	0.00	40.0
11	T1	342	0.0	0.196	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	39.7
Approach		381	0.0	0.196	0.4	NA	0.0	0.0	0.00	0.05	0.00	39.8
SouthWest: Howard Road												
5	T1	174	1.8	0.108	0.3	LOS A	0.2	1.7	0.14	0.06	0.14	39.3
6	R2	24	0.0	0.108	5.0	LOS A	0.2	1.7	0.14	0.06	0.14	42.0
Approach		198	1.6	0.108	0.9	NA	0.2	1.7	0.14	0.06	0.14	39.7
All Vehicles		606	0.7	0.196	0.8	NA	0.2	1.7	0.07	0.08	0.07	39.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Segers Ave PM EX + DEV]

Interesection: Howard Road / Segers Avenue
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:33:16 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Howard Rd x Segers Ave PM EX + DEV]

Interesection: Howard Road / Segers Avenue
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

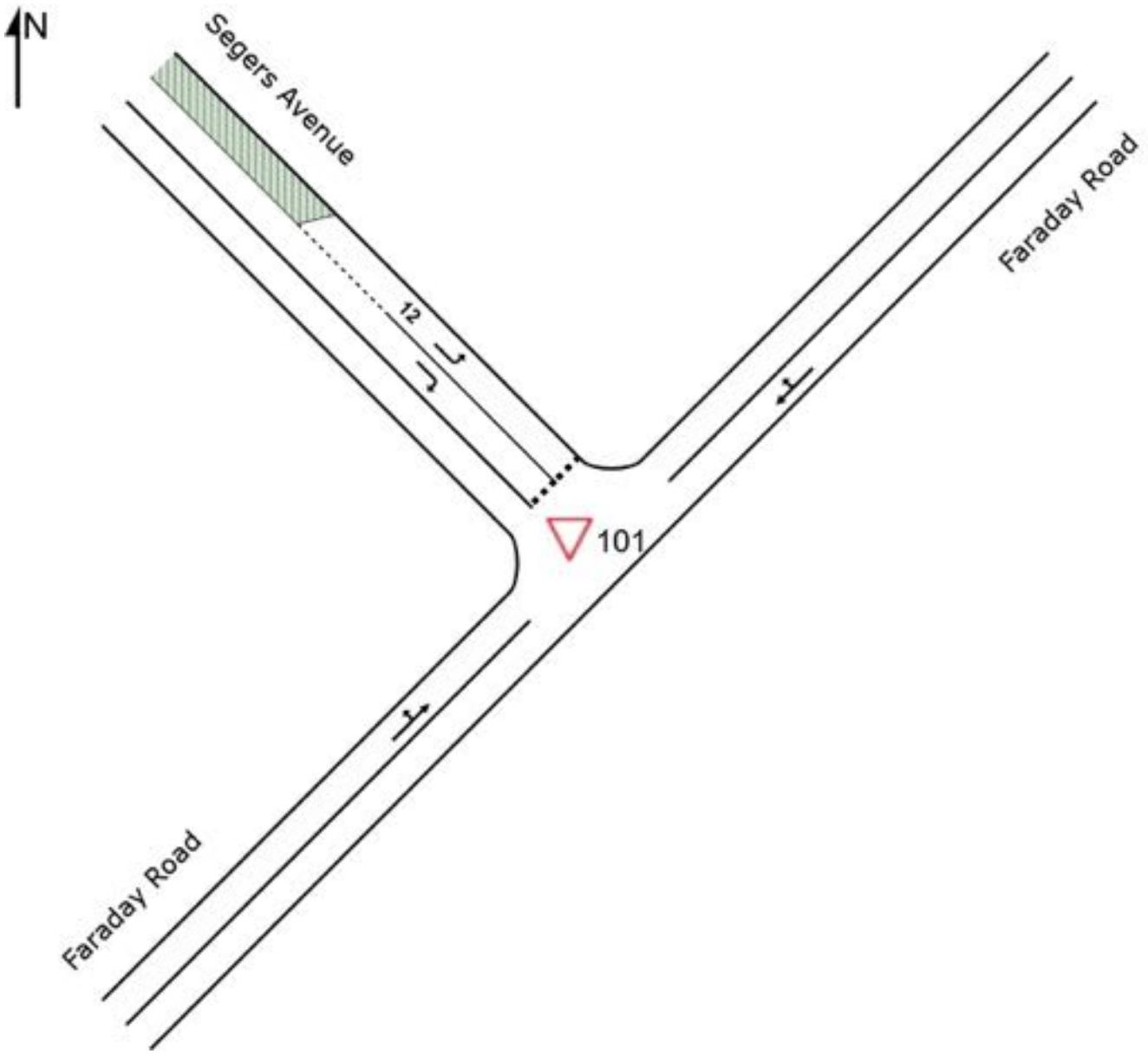
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
SouthEast: Segers Avenue												
7	L2	32	0.0	0.026	6.3	LOS A	0.1	0.8	0.40	0.57	0.40	46.3
9	R2	28	3.7	0.039	7.8	LOS A	0.1	0.9	0.47	0.70	0.47	41.5
Approach		60	1.8	0.039	7.0	LOS A	0.1	0.9	0.43	0.63	0.43	44.6
NorthEast: Howard Road												
10	L2	39	0.0	0.209	3.6	LOS A	0.0	0.0	0.00	0.05	0.00	41.1
11	T1	367	0.0	0.209	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	41.0
Approach		406	0.0	0.209	0.3	NA	0.0	0.0	0.00	0.05	0.00	41.0
SouthWest: Howard Road												
5	T1	201	1.6	0.123	0.3	LOS A	0.3	1.8	0.13	0.06	0.13	41.8
6	R2	24	0.0	0.123	5.4	LOS A	0.3	1.8	0.13	0.06	0.13	43.7
Approach		225	1.4	0.123	0.9	NA	0.3	1.8	0.13	0.06	0.13	42.0
All Vehicles		692	0.6	0.209	1.1	NA	0.3	1.8	0.08	0.10	0.08	41.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Faraday Rd x Segers Ave AM EX]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:40:12 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Faraday Rd x Segers Ave AM EX]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

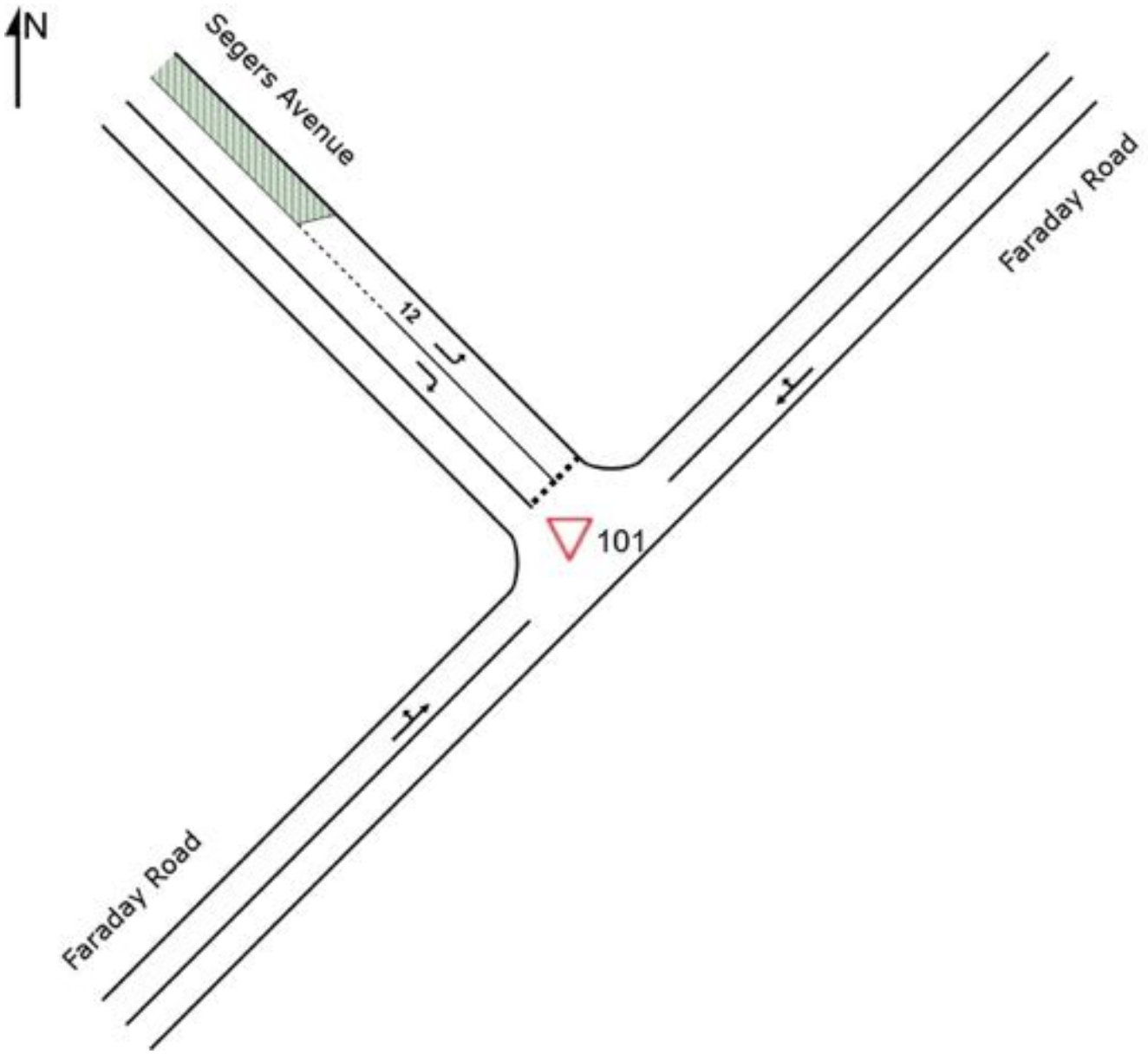
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
NorthEast: Faraday Road												
5	T1	161	7.8	0.100	0.2	LOS A	0.1	1.1	0.09	0.05	0.09	49.3
6	R2	15	14.3	0.100	6.2	LOS A	0.1	1.1	0.09	0.05	0.09	47.5
Approach		176	8.4	0.100	0.7	NA	0.1	1.1	0.09	0.05	0.09	49.2
NorthWest: Segers Avenue												
7	L2	22	4.8	0.019	5.7	LOS A	0.1	0.5	0.37	0.55	0.37	42.9
9	R2	11	10.0	0.014	7.0	LOS A	0.0	0.3	0.44	0.64	0.44	43.6
Approach		33	6.5	0.019	6.1	LOS A	0.1	0.5	0.39	0.58	0.39	43.2
SouthWest: Faraday Road												
10	L2	28	0.0	0.178	4.6	LOS A	0.0	0.0	0.00	0.05	0.00	49.1
11	T1	312	2.7	0.178	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	49.6
Approach		340	2.5	0.178	0.4	NA	0.0	0.0	0.00	0.05	0.00	49.6
All Vehicles		548	4.6	0.178	0.8	NA	0.1	1.1	0.05	0.08	0.05	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Faraday Rd x Segers Ave AM EX + DEV]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Faraday Rd x Segers Ave AM EX + DEV]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

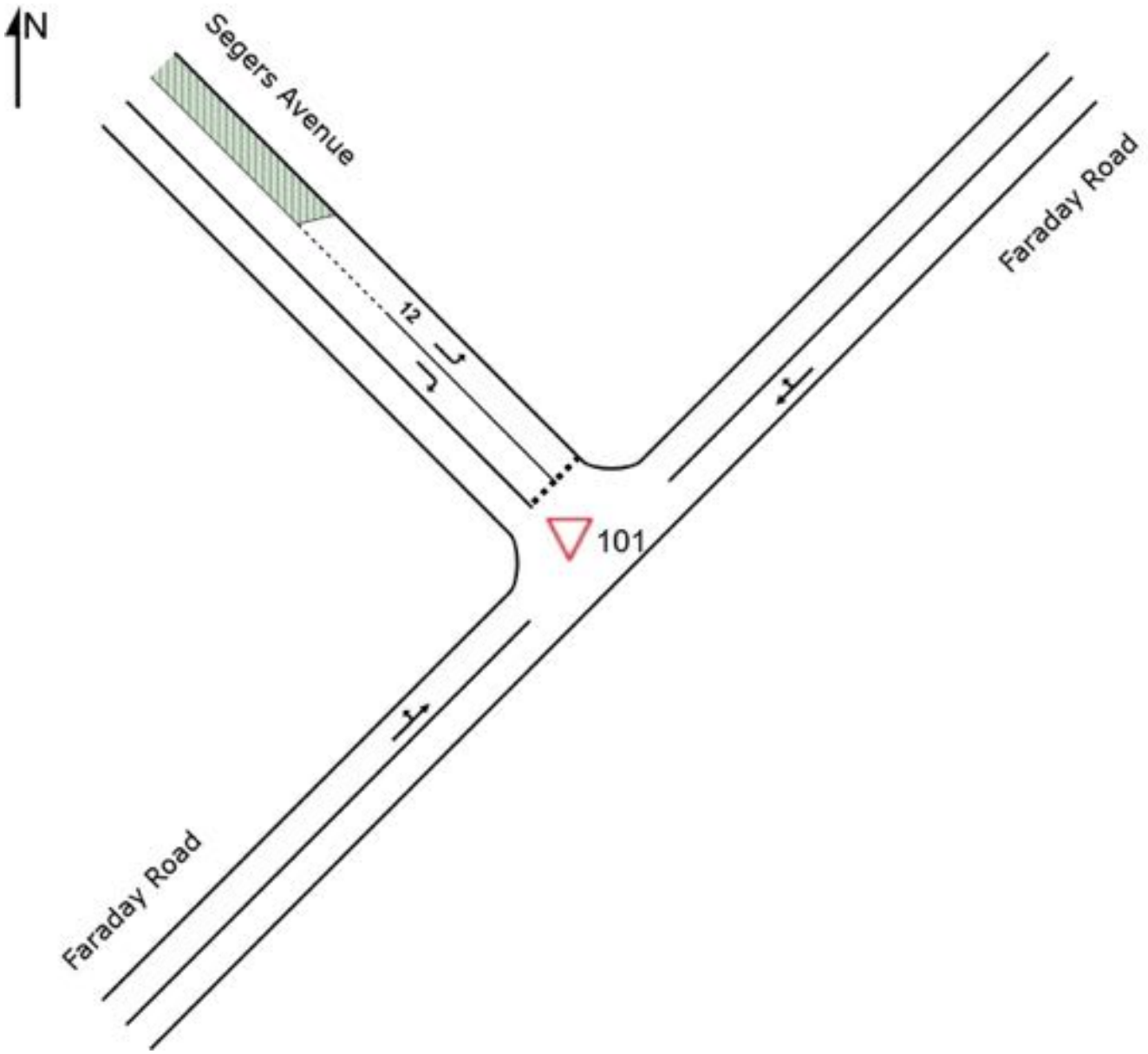
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
NorthEast: Faraday Road												
5	T1	161	7.8	0.104	0.3	LOS A	0.2	1.4	0.12	0.07	0.12	49.2
6	R2	20	10.5	0.104	6.2	LOS A	0.2	1.4	0.12	0.07	0.12	48.4
Approach		181	8.1	0.104	0.9	NA	0.2	1.4	0.12	0.07	0.12	49.1
NorthWest: Segers Avenue												
7	L2	36	2.9	0.030	6.0	LOS A	0.1	0.8	0.37	0.57	0.37	44.9
9	R2	23	4.5	0.031	7.4	LOS A	0.1	0.7	0.44	0.68	0.44	47.1
Approach		59	3.6	0.031	6.6	LOS A	0.1	0.8	0.40	0.61	0.40	45.9
SouthWest: Faraday Road												
10	L2	35	0.0	0.181	4.6	LOS A	0.0	0.0	0.00	0.06	0.00	49.1
11	T1	312	2.7	0.181	0.0	LOS A	0.0	0.0	0.00	0.06	0.00	50.6
Approach		346	2.4	0.181	0.5	NA	0.0	0.0	0.00	0.06	0.00	50.4
All Vehicles		586	4.3	0.181	1.2	NA	0.2	1.4	0.08	0.12	0.08	49.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Faraday Rd x Segers Ave PM EX]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:39:56 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Faraday Rd x Segers Ave PM EX]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

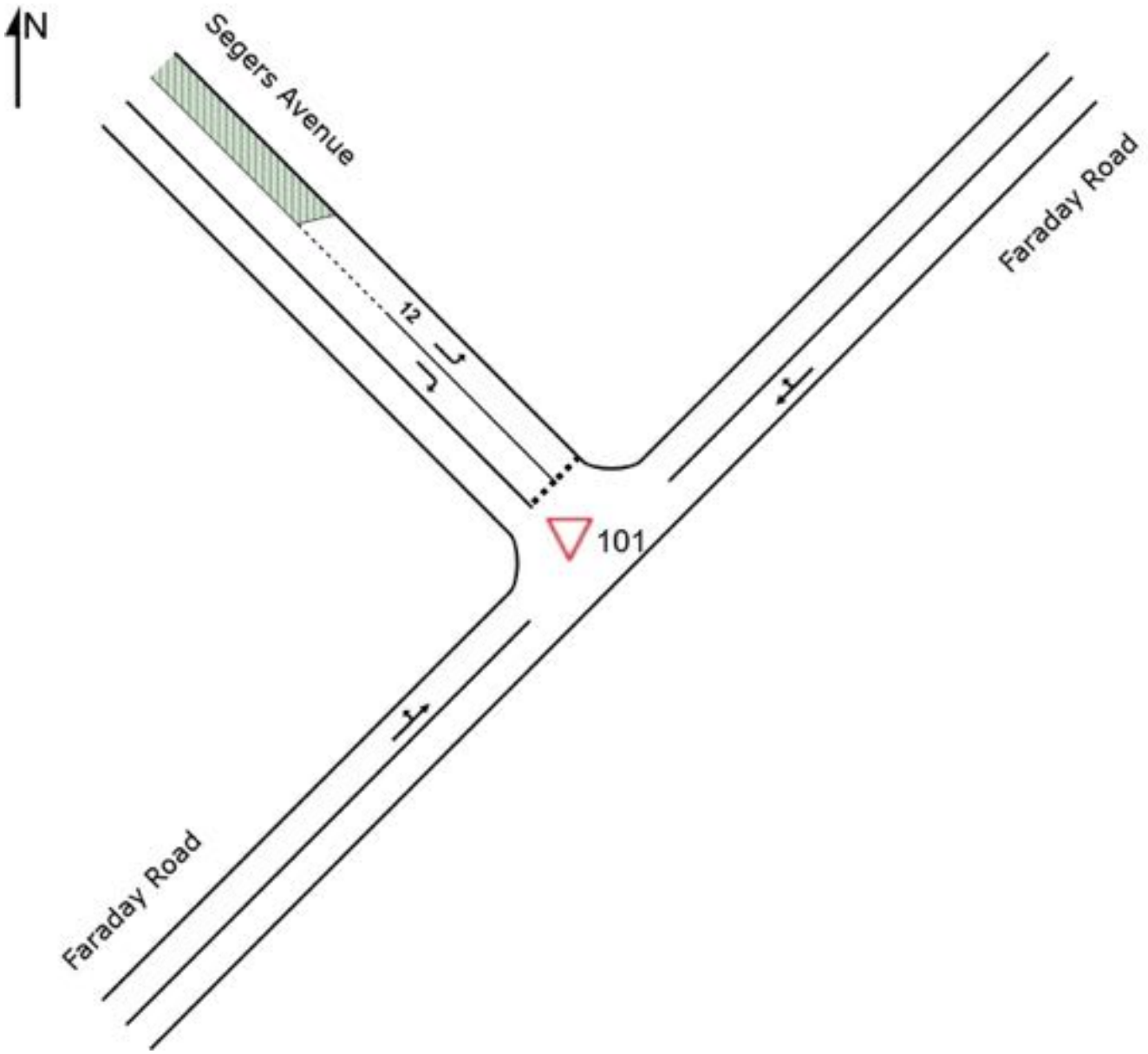
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
NorthEast: Faraday Road												
5	T1	324	0.0	0.170	0.0	LOS A	0.0	0.3	0.01	0.01	0.01	49.9
6	R2	4	25.0	0.170	5.9	LOS A	0.0	0.3	0.01	0.01	0.01	47.9
Approach		328	0.3	0.170	0.1	NA	0.0	0.3	0.01	0.01	0.01	49.9
NorthWest: Segers Avenue												
7	L2	29	0.0	0.022	5.2	LOS A	0.1	0.6	0.29	0.52	0.29	43.3
9	R2	34	0.0	0.044	6.9	LOS A	0.1	1.0	0.45	0.68	0.45	43.8
Approach		63	0.0	0.044	6.1	LOS A	0.1	1.0	0.38	0.61	0.38	43.6
SouthWest: Faraday Road												
10	L2	12	0.0	0.115	4.6	LOS A	0.0	0.0	0.00	0.03	0.00	49.2
11	T1	207	3.6	0.115	0.0	LOS A	0.0	0.0	0.00	0.03	0.00	49.8
Approach		219	3.4	0.115	0.3	NA	0.0	0.0	0.00	0.03	0.00	49.7
All Vehicles		611	1.4	0.170	0.8	NA	0.1	1.0	0.05	0.08	0.05	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Faraday Rd x Segers Ave PM EX + DEV]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 7:40:39 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

MOVEMENT SUMMARY

Site: 101 [Faraday Rd x Segers Ave PM EX + DEV]

Intersection: Faraday Road x Segers Avenue
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
NorthEast: Faraday Road												
5	T1	324	0.0	0.179	0.1	LOS A	0.1	1.0	0.05	0.04	0.05	49.7
6	R2	17	6.3	0.179	5.6	LOS A	0.1	1.0	0.05	0.04	0.05	50.8
Approach		341	0.3	0.179	0.4	NA	0.1	1.0	0.05	0.04	0.05	49.8
NorthWest: Segers Avenue												
7	L2	43	0.0	0.032	5.5	LOS A	0.1	0.9	0.29	0.54	0.29	45.0
9	R2	47	0.0	0.063	7.4	LOS A	0.2	1.4	0.47	0.71	0.47	45.5
Approach		91	0.0	0.063	6.5	LOS A	0.2	1.4	0.38	0.63	0.38	45.3
SouthWest: Faraday Road												
10	L2	27	0.0	0.124	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	49.5
11	T1	207	3.6	0.124	0.1	LOS A	0.0	0.0	0.00	0.08	0.00	51.0
Approach		235	3.1	0.124	0.6	NA	0.0	0.0	0.00	0.08	0.00	50.8
All Vehicles		666	1.3	0.179	1.3	NA	0.2	1.4	0.08	0.13	0.08	49.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

NETWORK LAYOUT

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd AM EX]

Intersection: Howard Road x Ryan Road x Parker Lane x Faraday Road x Parmal Road
Scenario: Existing
Period: AM
Network Category: (None)

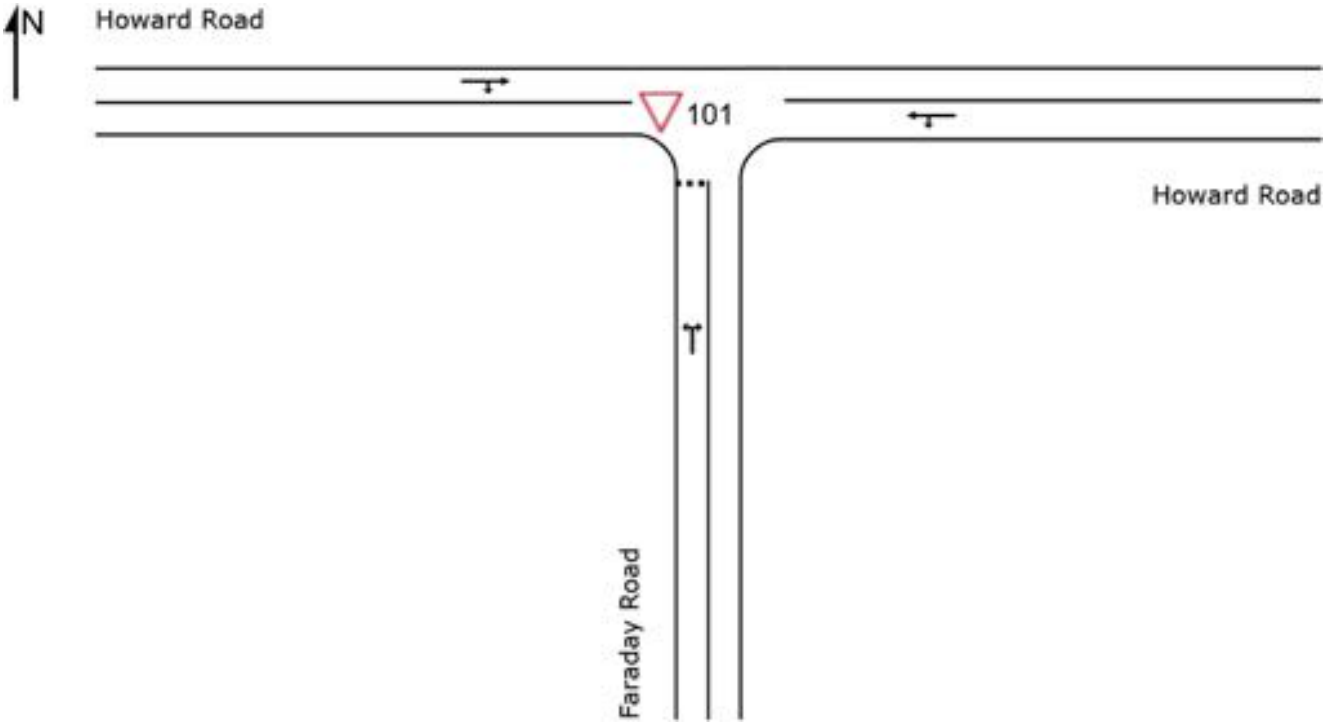
SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
101	NA	Howard Rd x Ryan Rd x Parmal Ave x Parker Ln AM EX
101	NA	Howard Rd x Faraday Rd AM EX

Organisation: PDC CONSULTANTS | Created: Thursday, 13 September 2018 8:09:29 AM
Project: C:\Users\jbonc\Google Drive\PDC Consultants\Jobs\0074\Modelling\0074m01 PDC Modelling.sip8

SITE LAYOUT

Site: 101 [Howard Rd x Faraday Rd AM EX]

Intersection: Faraday Rd x Howard Road x Ryan Road
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Faraday Rd AM EX]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd AM EX]

Intersection: Faraday Rd x Howard Road x Ryan Road
Scenario: Existing
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

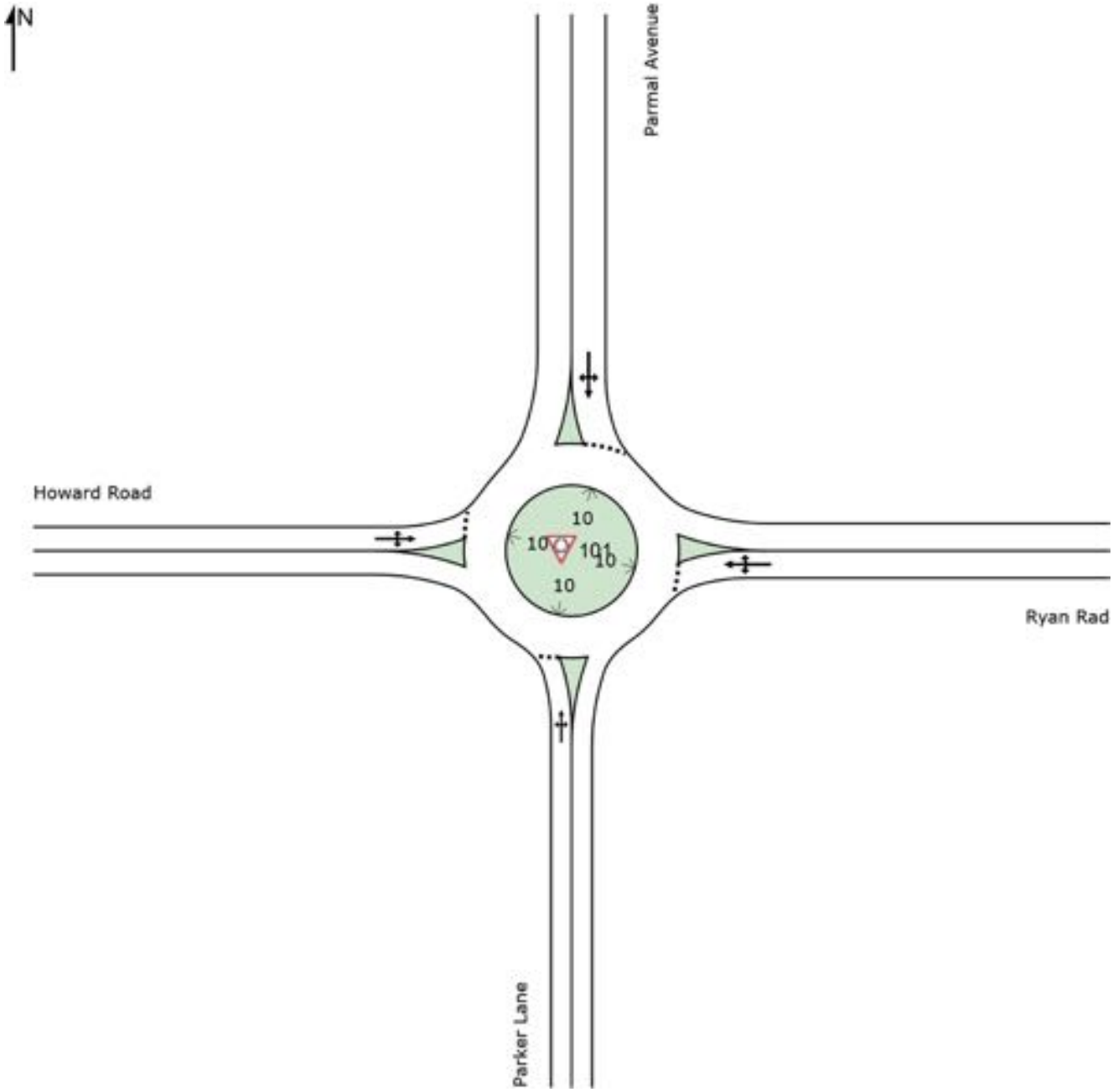
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Faraday Road														
7	L2	91	12.8	91	12.8	0.235	4.4	LOS A	0.4	2.7	0.40	0.61	0.40	37.3
9	R2	116	3.6	116	3.6	0.235	6.4	LOS A	0.4	2.7	0.40	0.61	0.40	35.8
Approach		206	7.7	206	7.7	0.235	5.5	LOS A	0.4	2.7	0.40	0.61	0.40	36.6
East: Howard Road														
10	L2	97	7.6	97	7.6	0.168	1.8	LOS A	0.0	0.0	0.00	0.13	0.00	39.8
11	T1	223	5.7	223	5.7	0.168	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	39.2
Approach		320	6.3	320	6.2	0.168	0.5	NA	0.0	0.0	0.00	0.13	0.00	39.5
West: Howard Road														
5	T1	168	13.8	168	13.8	0.192	0.9	LOS A	0.3	2.5	0.30	0.22	0.30	36.3
6	R2	111	8.6	111	8.6	0.192	5.0	LOS A	0.3	2.5	0.30	0.22	0.30	38.3
Approach		279	11.7	279	11.7	0.192	2.6	NA	0.3	2.5	0.30	0.22	0.30	37.6
All Vehicles		805	8.5	805	8.5	0.235	2.5	NA	0.4	2.7	0.21	0.29	0.21	37.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln AM EX]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing
Period: AM
Site Category: -
Roundabout



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln AM EX]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd AM EX]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing
Period: AM
Site Category: -
Roundabout

Movement Performance - Vehicles

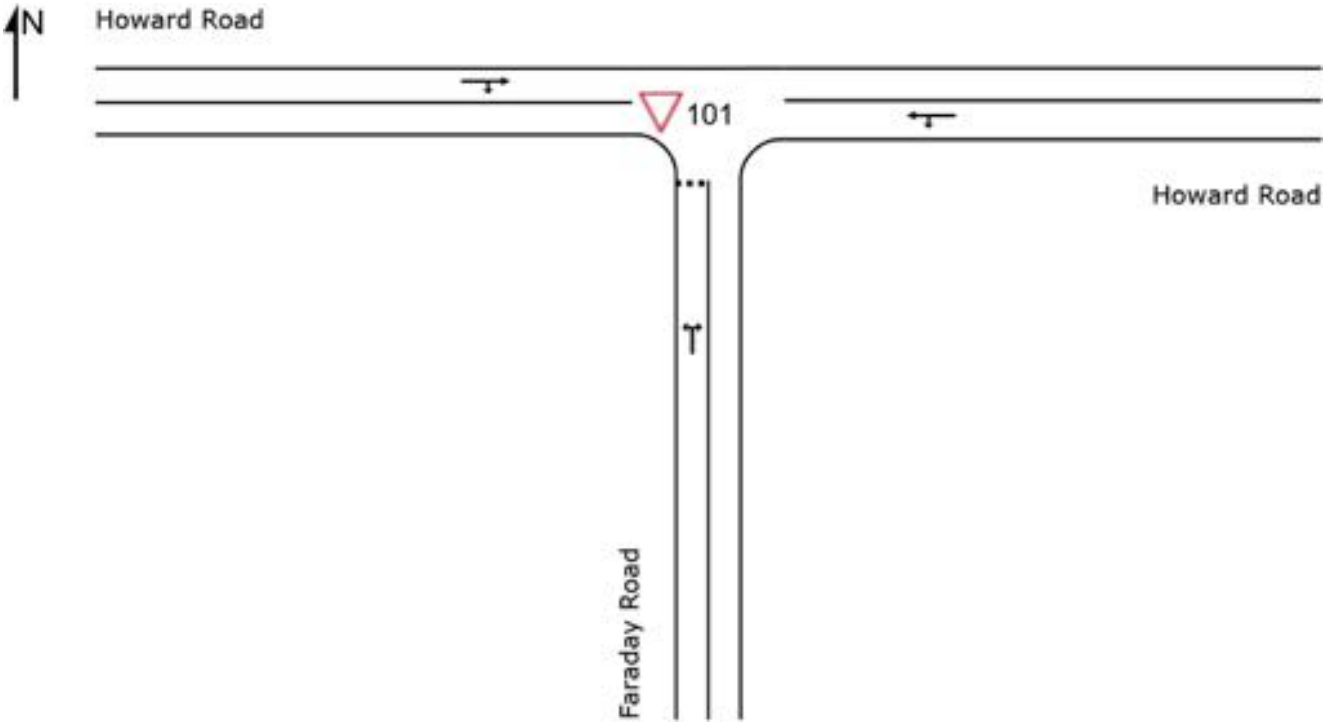
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Parker Lane														
1	L2	21	0.0	21	0.0	0.031	4.8	LOS A	0.1	0.6	0.53	0.52	0.53	26.2
2	T1	1	0.0	1	0.0	0.031	4.5	LOS A	0.1	0.6	0.53	0.52	0.53	39.3
3	R2	6	16.7	6	16.7	0.031	8.1	LOS A	0.1	0.6	0.53	0.52	0.53	39.3
Approach		28	3.7	28	3.7	0.031	5.5	LOS A	0.1	0.6	0.53	0.52	0.53	32.1
East: Ryan Rad														
4	L2	18	0.0	18	0.0	0.255	3.0	LOS A	0.5	3.8	0.19	0.36	0.19	36.6
5	T1	289	6.9	289	6.9	0.255	2.7	LOS A	0.5	3.8	0.19	0.36	0.19	35.6
6	R2	24	0.0	24	0.0	0.255	5.8	LOS A	0.5	3.8	0.19	0.36	0.19	40.9
Approach		332	6.0	332	6.0	0.255	2.9	LOS A	0.5	3.8	0.19	0.36	0.19	36.2
North: Parmal Avenue														
7	L2	5	0.0	5	0.0	0.013	3.8	LOS A	0.0	0.1	0.35	0.53	0.35	39.0
8	T1	1	0.0	1	0.0	0.013	3.3	LOS A	0.0	0.1	0.35	0.53	0.35	35.6
9	R2	7	0.0	7	0.0	0.013	6.5	LOS A	0.0	0.1	0.35	0.53	0.35	32.7
Approach		14	0.0	14	0.0	0.013	5.2	LOS A	0.0	0.1	0.35	0.53	0.35	36.2
West: Howard Road														
10	L2	5	0.0	5	0.0	0.210	1.3	LOS A	0.6	4.2	0.16	0.36	0.16	42.5
11	T1	226	11.6	226	11.6	0.210	1.4	LOS A	0.6	4.2	0.16	0.36	0.16	45.0
12	R2	54	2.0	54	2.0	0.210	3.8	LOS A	0.6	4.2	0.16	0.36	0.16	37.4
Approach		285	9.6	285	9.6	0.210	1.8	LOS A	0.6	4.2	0.16	0.36	0.16	44.2
All Vehicles		659	7.3	659	7.3	0.255	2.6	LOS A	0.6	4.2	0.20	0.37	0.20	38.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Faraday Rd AM EX + DEV]

Intersection: Faraday Rd x Howard Road x Ryan Road
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Faraday Rd AM EX + DEV]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd AM EX + DEV]

Intersection: Faraday Rd x Howard Road x Ryan Road
Scenario: Existing + Development
Period: AM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

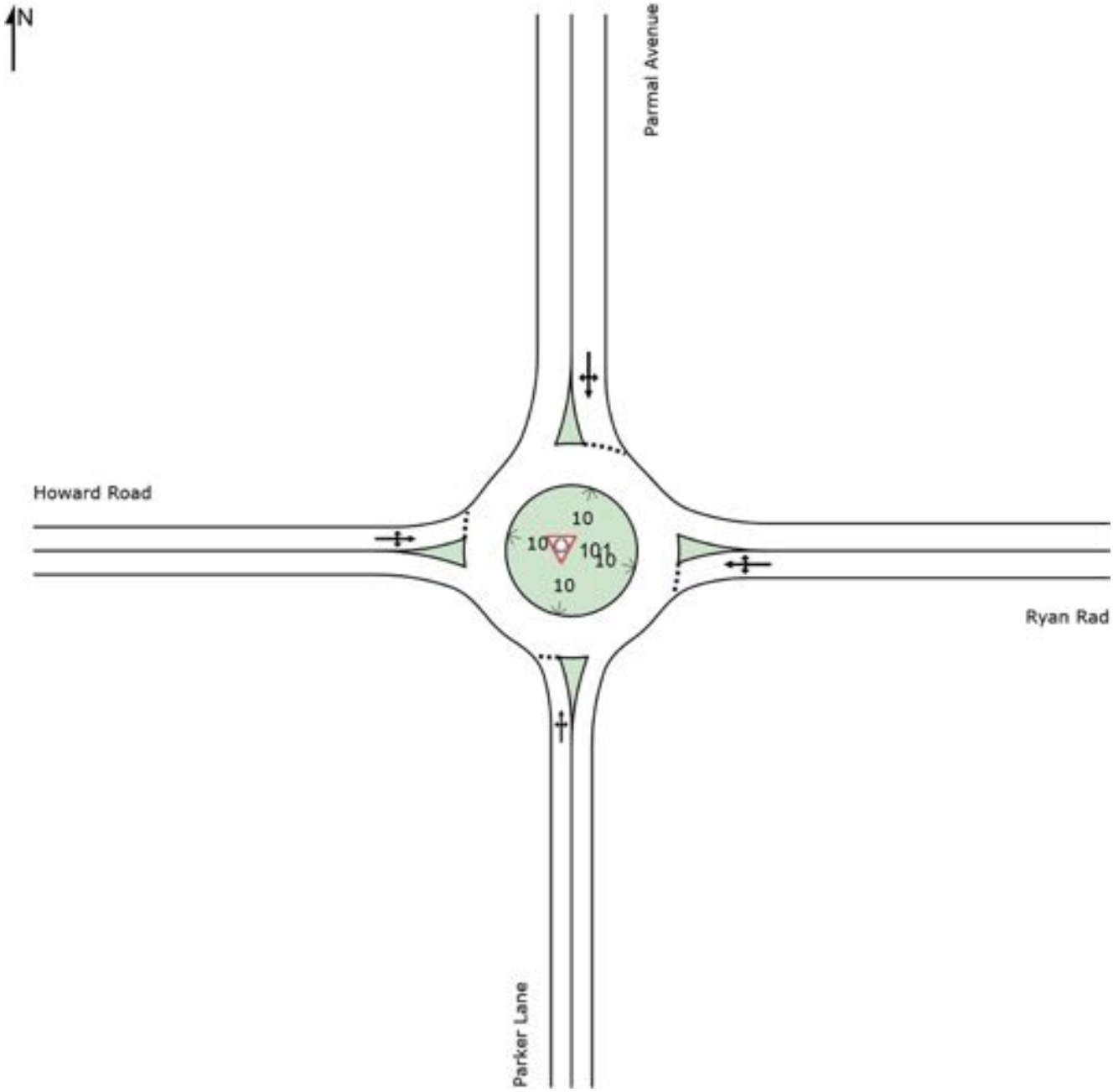
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Faraday Road														
7	L2	95	12.2	95	12.2	0.251	4.6	LOS A	0.4	2.9	0.41	0.62	0.41	37.9
9	R2	121	3.5	121	3.5	0.251	6.6	LOS A	0.4	2.9	0.41	0.62	0.41	36.3
Approach		216	7.3	216	7.3	0.251	5.7	LOS A	0.4	2.9	0.41	0.62	0.41	37.2
East: Howard Road														
10	L2	100	7.4	100	7.4	0.171	1.8	LOS A	0.0	0.0	0.00	0.13	0.00	40.2
11	T1	227	5.6	227	5.6	0.171	0.0	LOS A	0.0	0.0	0.00	0.13	0.00	39.7
Approach		327	6.1	327	6.1	0.171	0.6	NA	0.0	0.0	0.00	0.13	0.00	39.9
West: Howard Road														
5	T1	176	13.2	176	13.2	0.203	1.0	LOS A	0.3	2.6	0.31	0.23	0.31	37.0
6	R2	116	8.2	116	8.2	0.203	5.2	LOS A	0.3	2.6	0.31	0.23	0.31	39.0
Approach		292	11.2	292	11.2	0.203	2.7	NA	0.3	2.6	0.31	0.23	0.31	38.3
All Vehicles		835	8.2	835	8.2	0.251	2.6	NA	0.4	2.9	0.21	0.29	0.21	38.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln AM EX + DEV]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing + Development
Period: AM
Site Category: -
Roundabout



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln AM EX + DEV]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd AM EX + DEV]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing + Development
Period: AM
Site Category: -
Roundabout

Movement Performance - Vehicles

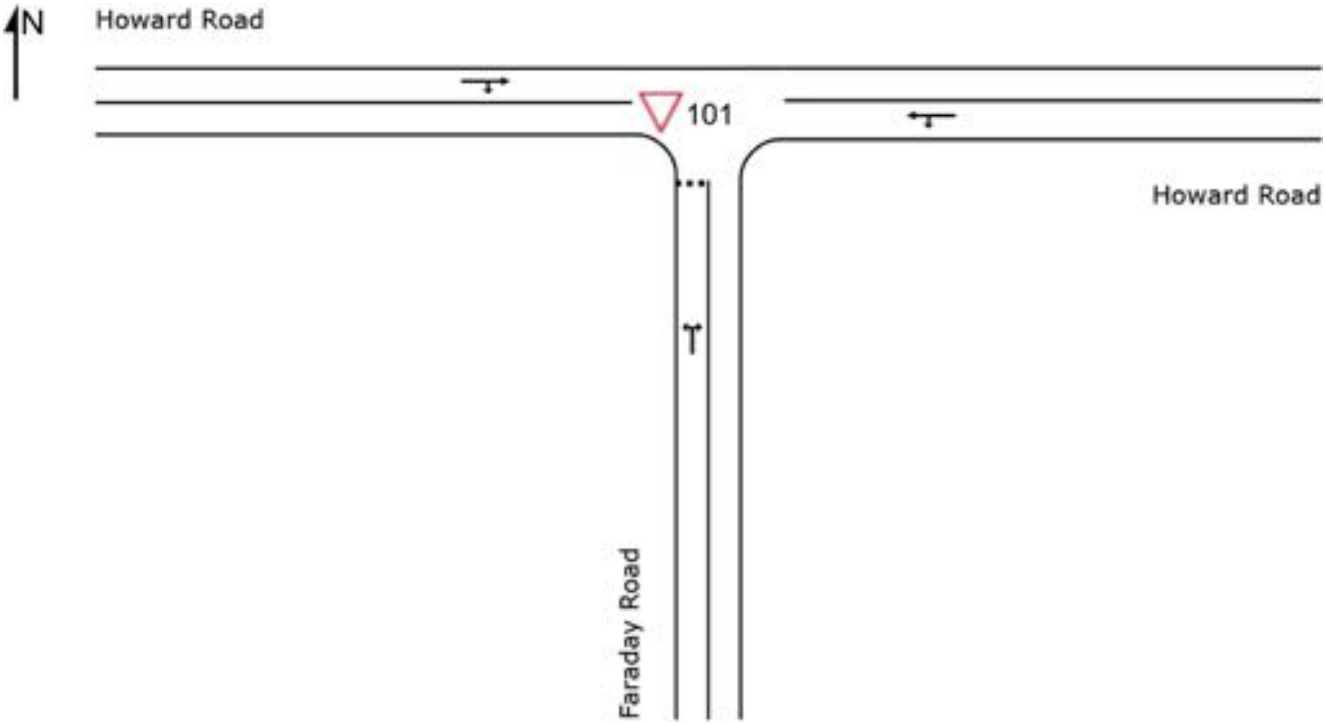
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Parker Lane														
1	L2	21	0.0	21	0.0	0.031	4.8	LOS A	0.1	0.6	0.54	0.52	0.54	26.1
2	T1	1	0.0	1	0.0	0.031	4.6	LOS A	0.1	0.6	0.54	0.52	0.54	39.2
3	R2	6	16.7	6	16.7	0.031	8.2	LOS A	0.1	0.6	0.54	0.52	0.54	39.3
Approach		28	3.7	28	3.7	0.031	5.5	LOS A	0.1	0.6	0.54	0.52	0.54	32.0
East: Ryan Rad														
4	L2	18	0.0	18	0.0	0.259	3.0	LOS A	0.5	3.9	0.19	0.36	0.19	36.8
5	T1	296	6.8	296	6.8	0.259	2.7	LOS A	0.5	3.9	0.19	0.36	0.19	35.9
6	R2	24	0.0	24	0.0	0.259	5.8	LOS A	0.5	3.9	0.19	0.36	0.19	41.0
Approach		338	5.9	338	5.9	0.259	3.0	LOS A	0.5	3.9	0.19	0.36	0.19	36.5
North: Parmal Avenue														
7	L2	5	0.0	5	0.0	0.013	3.8	LOS A	0.0	0.1	0.36	0.53	0.36	39.0
8	T1	1	0.0	1	0.0	0.013	3.3	LOS A	0.0	0.1	0.36	0.53	0.36	35.6
9	R2	7	0.0	7	0.0	0.013	6.5	LOS A	0.0	0.1	0.36	0.53	0.36	32.7
Approach		14	0.0	14	0.0	0.013	5.2	LOS A	0.0	0.1	0.36	0.53	0.36	36.1
West: Howard Road														
10	L2	5	0.0	5	0.0	0.218	1.3	LOS A	0.6	4.4	0.16	0.36	0.16	42.5
11	T1	239	11.0	239	11.0	0.218	1.4	LOS A	0.6	4.4	0.16	0.36	0.16	45.4
12	R2	54	2.0	54	2.0	0.218	3.9	LOS A	0.6	4.4	0.16	0.36	0.16	37.5
Approach		298	9.2	298	9.2	0.218	1.9	LOS A	0.6	4.4	0.16	0.36	0.16	44.5
All Vehicles		678	7.1	678	7.1	0.259	2.6	LOS A	0.6	4.4	0.20	0.37	0.20	39.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Faraday Rd PM EX]

Intersection: Faraday Rd x Howard Road
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Faraday Rd PM EX]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd PM EX]

Intersection: Faraday Rd x Howard Road
Scenario: Existing
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

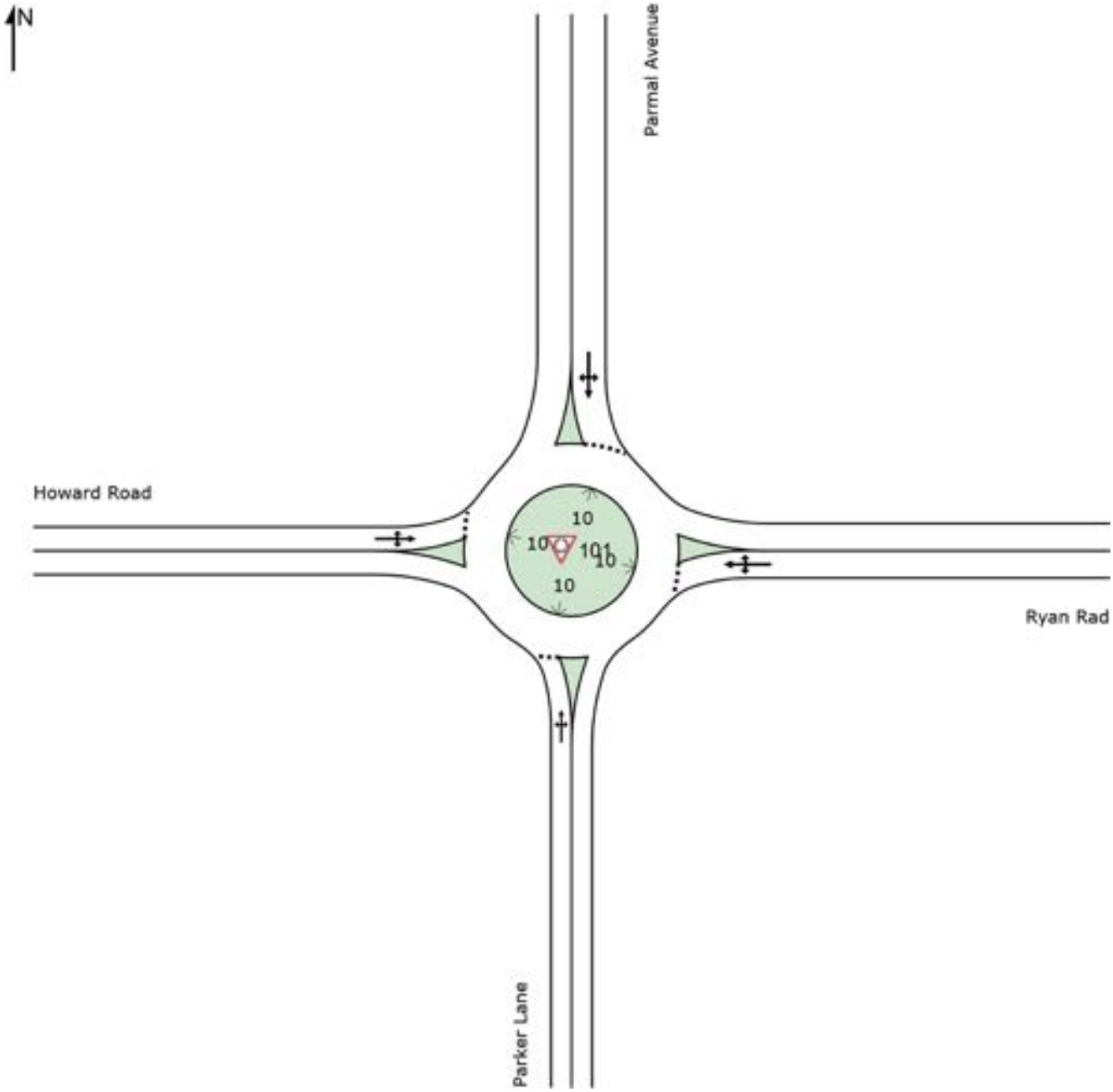
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Faraday Road														
7	L2	82	7.7	82	7.7	0.358	4.5	LOS A	0.5	3.6	0.38	0.65	0.44	36.8
9	R2	144	0.0	144	0.0	0.358	7.7	LOS A	0.5	3.6	0.38	0.65	0.44	35.1
Approach		226	2.8	226	2.8	0.358	6.5	LOS A	0.5	3.6	0.38	0.65	0.44	35.8
East: Howard Road														
10	L2	220	1.0	220	1.0	0.198	1.8	LOS A	0.0	0.0	0.00	0.25	0.00	39.4
11	T1	161	7.2	161	7.2	0.198	0.0	LOS A	0.0	0.0	0.00	0.25	0.00	38.5
Approach		381	3.6	381	3.6	0.198	1.0	NA	0.0	0.0	0.00	0.25	0.00	39.1
West: Howard Road														
5	T1	299	4.6	299	4.6	0.343	0.9	LOS A	0.4	2.8	0.26	0.15	0.26	37.1
6	R2	102	8.2	102	8.2	0.343	5.5	LOS A	0.4	2.8	0.26	0.15	0.26	38.6
Approach		401	5.5	401	5.5	0.343	2.1	NA	0.4	2.8	0.26	0.15	0.26	37.8
All Vehicles		1008	4.2	1008	4.2	0.358	2.7	NA	0.5	3.6	0.19	0.30	0.20	37.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln PM EX]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing
Period: PM
Site Category: -
Roundabout



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln PM EX]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd PM EX]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing
Period: PM
Site Category: -
Roundabout

Movement Performance - Vehicles

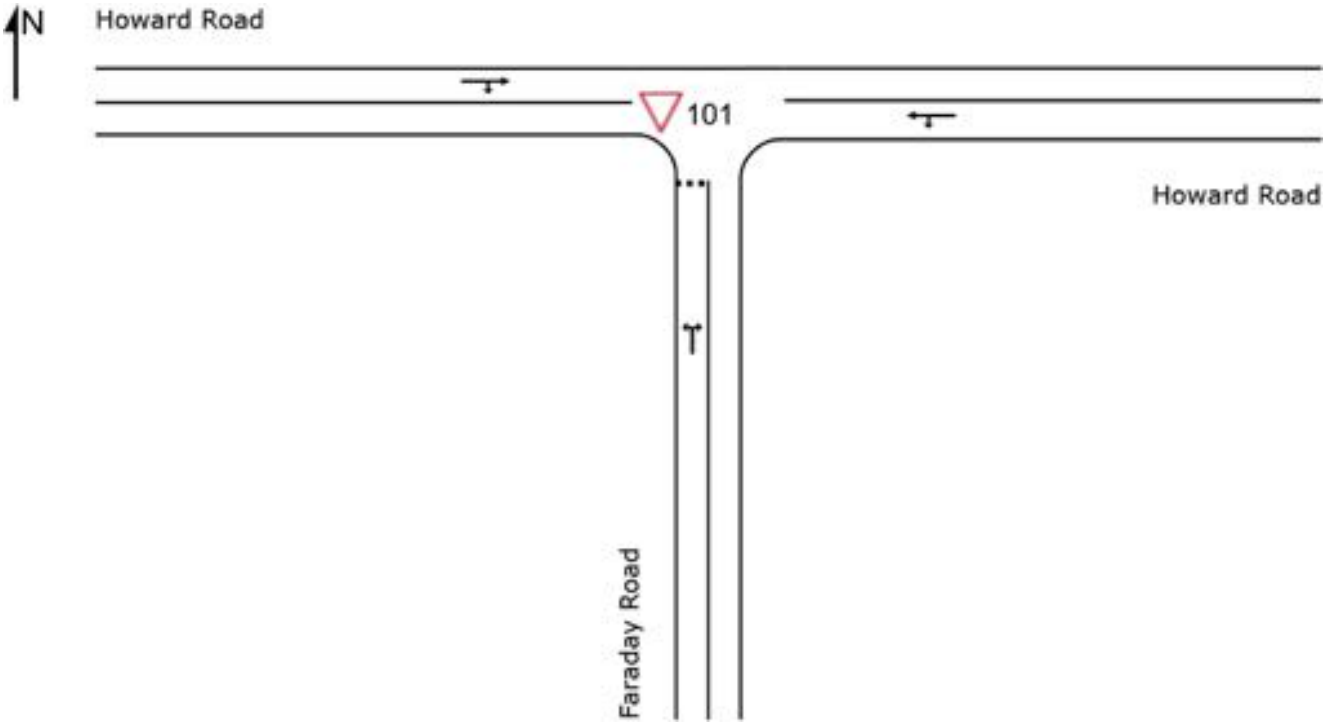
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Parker Lane														
1	L2	153	0.0	153	0.0	0.212	4.6	LOS A	0.6	4.3	0.55	0.57	0.55	26.4
2	T1	1	0.0	1	0.0	0.212	4.3	LOS A	0.6	4.3	0.55	0.57	0.55	39.3
3	R2	55	1.9	55	1.9	0.212	7.5	LOS A	0.6	4.3	0.55	0.57	0.55	39.8
Approach		208	0.5	208	0.5	0.212	5.4	LOS A	0.6	4.3	0.55	0.57	0.55	32.6
East: Ryan Rad														
4	L2	64	0.0	64	0.0	0.281	3.8	LOS A	0.6	4.3	0.37	0.46	0.37	35.9
5	T1	219	6.3	219	6.3	0.281	3.6	LOS A	0.6	4.3	0.37	0.46	0.37	34.7
6	R2	17	6.3	17	6.3	0.281	6.8	LOS A	0.6	4.3	0.37	0.46	0.37	40.1
Approach		300	4.9	300	4.9	0.281	3.8	LOS A	0.6	4.3	0.37	0.46	0.37	35.4
North: Parmal Avenue														
7	L2	17	6.3	17	6.3	0.032	4.7	LOS A	0.1	0.4	0.48	0.58	0.48	38.8
8	T1	2	0.0	2	0.0	0.032	4.2	LOS A	0.1	0.4	0.48	0.58	0.48	35.4
9	R2	9	0.0	9	0.0	0.032	7.3	LOS A	0.1	0.4	0.48	0.58	0.48	32.4
Approach		28	3.7	28	3.7	0.032	5.6	LOS A	0.1	0.4	0.48	0.58	0.48	37.1
West: Howard Road														
10	L2	18	0.0	18	0.0	0.341	1.6	LOS A	1.1	7.6	0.32	0.46	0.32	41.0
11	T1	246	5.6	246	5.6	0.341	1.7	LOS A	1.1	7.6	0.32	0.46	0.32	43.7
12	R2	179	0.0	179	0.0	0.341	4.2	LOS A	1.1	7.6	0.32	0.46	0.32	35.1
Approach		443	3.1	443	3.1	0.341	2.7	LOS A	1.1	7.6	0.32	0.46	0.32	41.3
All Vehicles		980	3.1	980	3.1	0.341	3.7	LOS A	1.1	7.6	0.39	0.49	0.39	37.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Faraday Rd PM EX + DEV]

Intersection: Faraday Rd x Howard Road
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Faraday Rd PM EX + DEV]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd PM EX + DEV]

Intersection: Faraday Rd x Howard Road
Scenario: Existing + Development
Period: PM
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

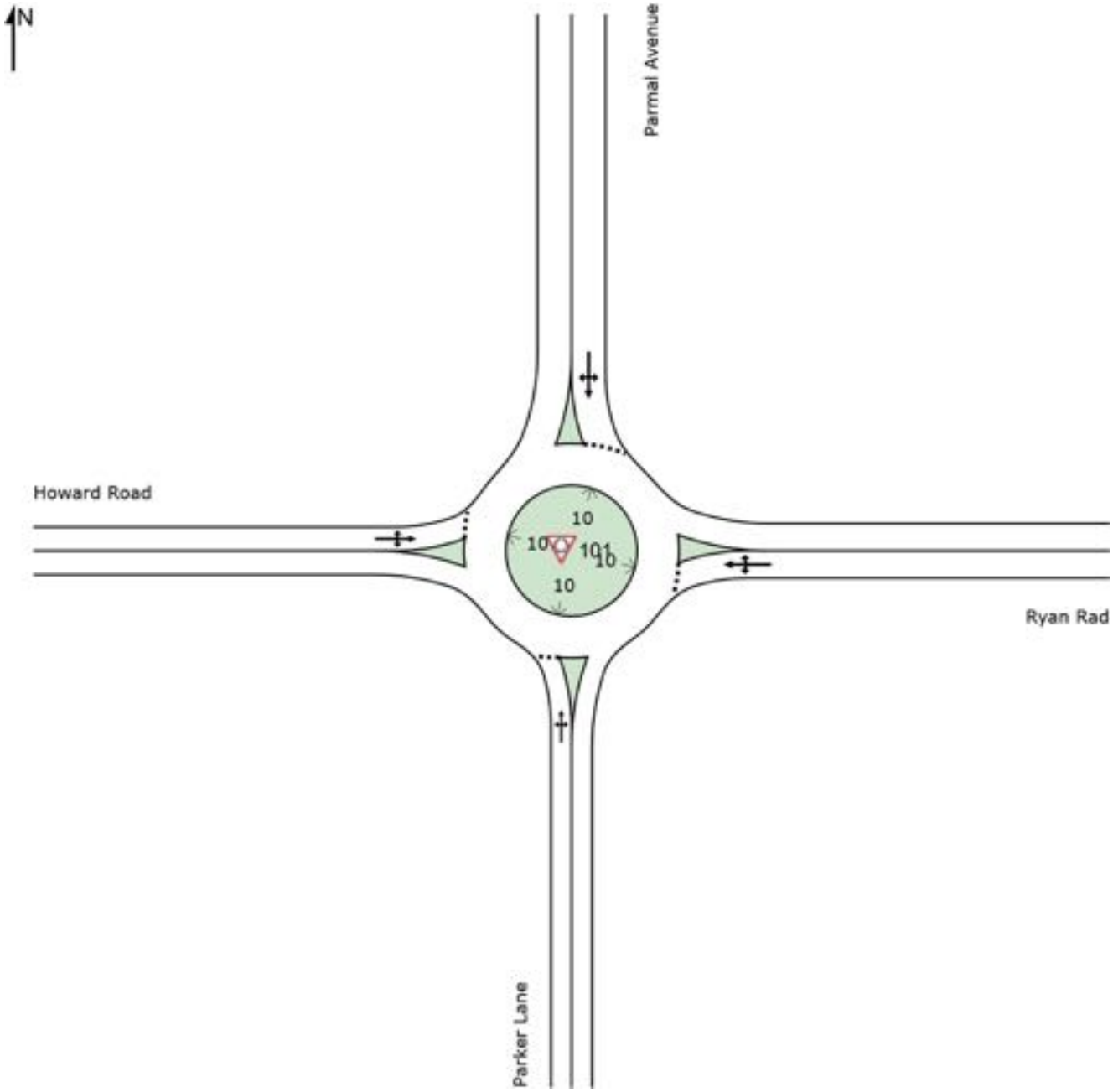
Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Faraday Road														
7	L2	88	7.1	88	7.1	0.382	4.8	LOS A	0.6	4.0	0.38	0.66	0.46	37.6
9	R2	152	0.0	152	0.0	0.382	8.1	LOS A	0.6	4.0	0.38	0.66	0.46	35.7
Approach		240	2.6	240	2.6	0.382	6.9	LOS A	0.6	4.0	0.38	0.66	0.46	36.6
East: Howard Road														
10	L2	227	0.9	227	0.9	0.202	1.8	LOS A	0.0	0.0	0.00	0.26	0.00	39.7
11	T1	161	7.2	161	7.2	0.202	0.0	LOS A	0.0	0.0	0.00	0.26	0.00	40.1
Approach		388	3.5	388	3.5	0.202	1.1	NA	0.0	0.0	0.00	0.26	0.00	39.8
West: Howard Road														
5	T1	300	4.6	300	4.6	0.351	1.0	LOS A	0.4	3.1	0.27	0.16	0.28	37.2
6	R2	107	7.8	107	7.8	0.351	5.6	LOS A	0.4	3.1	0.27	0.16	0.28	39.2
Approach		407	5.4	407	5.4	0.351	2.2	NA	0.4	3.1	0.27	0.16	0.28	38.1
All Vehicles		1036	4.1	1036	4.1	0.382	2.9	NA	0.6	4.0	0.20	0.31	0.22	38.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln PM + DEV]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing + Development
Period: PM
Site Category: -
Roundabout



MOVEMENT SUMMARY

Site: 101 [Howard Rd x Ryan Rd x Parmal Ave x Parker Ln PM + DEV]

Network: N101 [Howard Rd x Ryan Rd x Parker Ln x Faraday Rd x Parmal Rd PM EX + DEV]

Intersection: Howard Road x Ryan Rd x Parmal Avenue x Parker Lane
Scenario: Existing + Development
Period: PM
Site Category: -
Roundabout

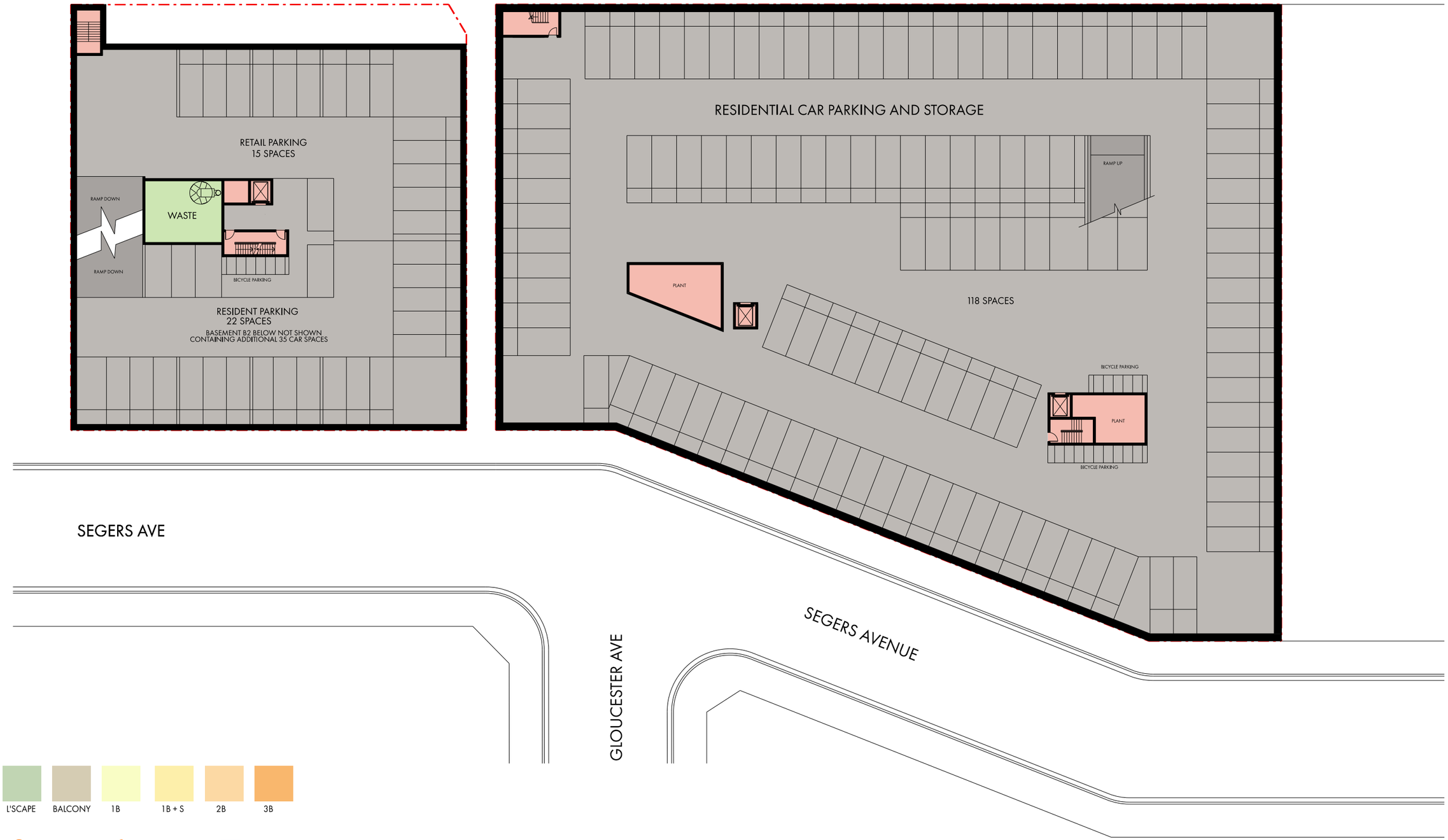
Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total	HV	Arrival Flows Total	HV	Deg. Satn	Average Delay	Level of Service	Aver. Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed
		veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Parker Lane														
1	L2	153	0.0	153	0.0	0.214	4.6	LOS A	0.6	4.3	0.55	0.57	0.55	26.3
2	T1	1	0.0	1	0.0	0.214	4.4	LOS A	0.6	4.3	0.55	0.57	0.55	39.2
3	R2	55	1.9	55	1.9	0.214	7.6	LOS A	0.6	4.3	0.55	0.57	0.55	39.7
Approach		208	0.5	208	0.5	0.214	5.4	LOS A	0.6	4.3	0.55	0.57	0.55	32.5
East: Ryan Rad														
4	L2	64	0.0	64	0.0	0.287	3.9	LOS A	0.6	4.4	0.37	0.47	0.37	36.1
5	T1	226	6.0	226	6.0	0.287	3.7	LOS A	0.6	4.4	0.37	0.47	0.37	35.0
6	R2	17	6.3	17	6.3	0.287	6.8	LOS A	0.6	4.4	0.37	0.47	0.37	40.3
Approach		307	4.8	307	4.8	0.287	3.9	LOS A	0.6	4.4	0.37	0.47	0.37	35.7
North: Parmal Avenue														
7	L2	17	6.3	17	6.3	0.032	4.8	LOS A	0.1	0.4	0.48	0.58	0.48	38.8
8	T1	2	0.0	2	0.0	0.032	4.2	LOS A	0.1	0.4	0.48	0.58	0.48	35.4
9	R2	9	0.0	9	0.0	0.032	7.3	LOS A	0.1	0.4	0.48	0.58	0.48	32.4
Approach		28	3.7	28	3.7	0.032	5.6	LOS A	0.1	0.4	0.48	0.58	0.48	37.1
West: Howard Road														
10	L2	18	0.0	18	0.0	0.343	1.6	LOS A	1.1	7.6	0.32	0.46	0.32	41.0
11	T1	248	5.5	248	5.5	0.343	1.7	LOS A	1.1	7.6	0.32	0.46	0.32	43.7
12	R2	179	0.0	179	0.0	0.343	4.2	LOS A	1.1	7.6	0.32	0.46	0.32	35.1
Approach		445	3.1	445	3.1	0.343	2.7	LOS A	1.1	7.6	0.32	0.46	0.32	41.4
All Vehicles		989	3.1	989	3.1	0.343	3.7	LOS A	1.1	7.6	0.39	0.49	0.39	37.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix C

CONCEPT DESIGN
1-17 SEGERS AVENUE PADSTOW



L'SCAPE BALCONY 1B 1B + S 2B 3B

MIN. 2HRS SOLAR ACCESS 1 HR SOLAR ACCESS CROSS VENTILATED

NORTH

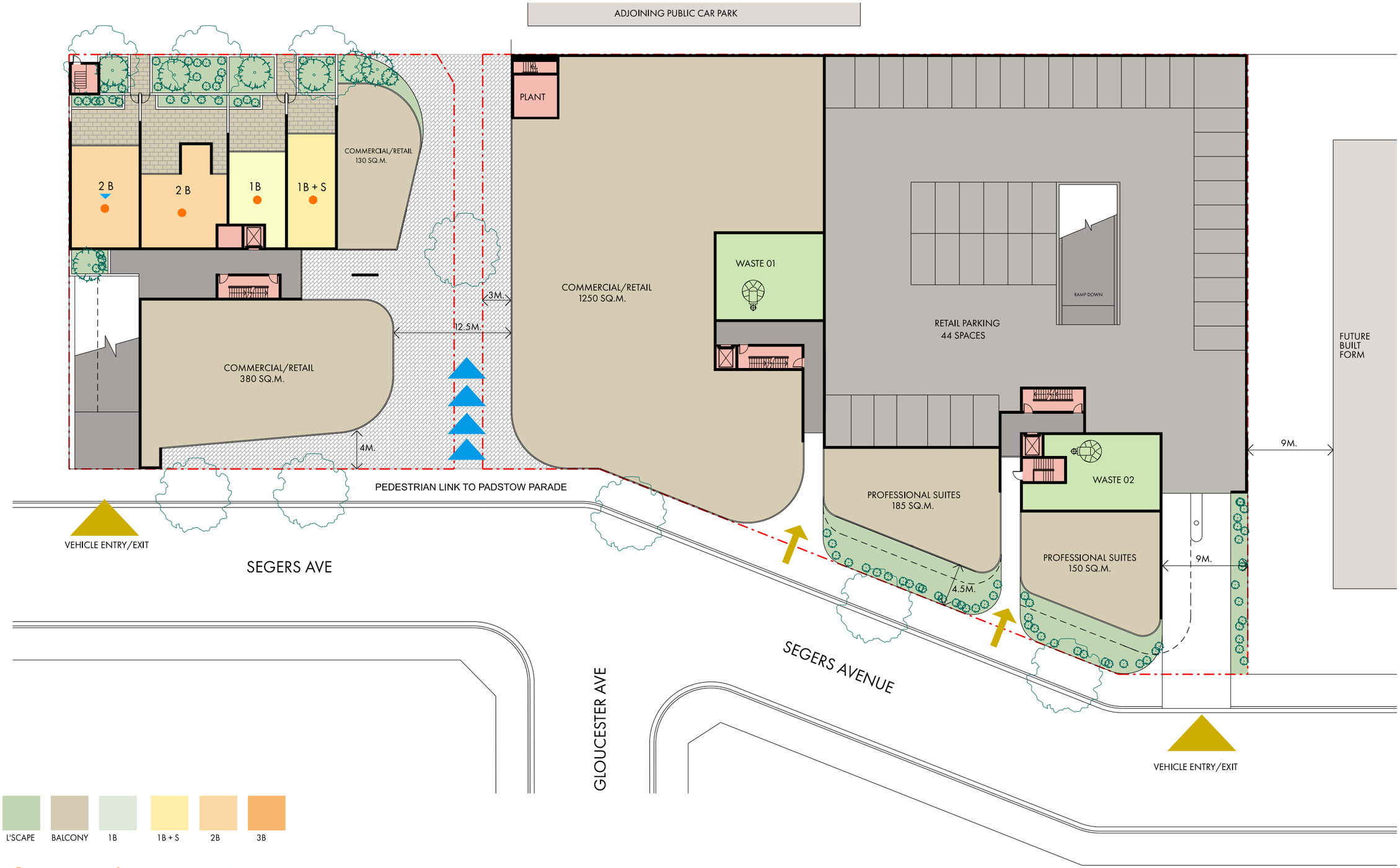
0 5 10 15 20m

BASEMENT PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN.58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 E:ROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	200	02	04.07.2018



GROUND FLOOR PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 EROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	201	02	04.07.2018

LEVEL 1 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 EROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	202	02	04.07.2018

ADJOINING PUBLIC CAR PARK

8M.
5M.
12M.
4M.
13M.
3M.
6M.
7.5M.
4M.
29M.
9M.
6M.
6M.

FUTURE BUILT FORM

SEGERS AVE

SEGERS AVENUE

GLOUCESTER AVE

L'SCAPE BALCONY 1B 1B + S 2B 3B

MIN. 2HRS SOLAR ACCESS 1 HR SOLAR ACCESS CROSS VENTILATED

NORTH

0 5 10 15 20m

LEVEL 2 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 EROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	203	02	04.07.2018

LEVEL 3 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
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NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	204	02	04.07.2018

LEVEL 4 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
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NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	205	02	04.07.2018

LEVEL 5 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 EROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	206	02	04.07.2018

ADJOINING PUBLIC CAR PARK

8M.

5M.

13M.

COMMON OPEN SPACE
450 SQ.M.

3M.

6M.

15M.

8.5M.

4M.

6M.

29M.

4M.

9M.

9M.

FUTURE
BUILT
FORM

6M.

SEGERS AVE

SEGERS AVENUE

GLOUCESTER AVE

L'SCAPE BALCONY 1B 1B + S 2B 3B

MIN. 2HRS SOLAR ACCESS

1 HR SOLAR ACCESS

CROSS VENTILATED

NORTH

0 5 10 15 20m

LEVEL 6 PLAN

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
T:(+61) 2 9571 5666 EROSS@RHARCH.COM.AU W:WWW.RHARCH.COM.AU
NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
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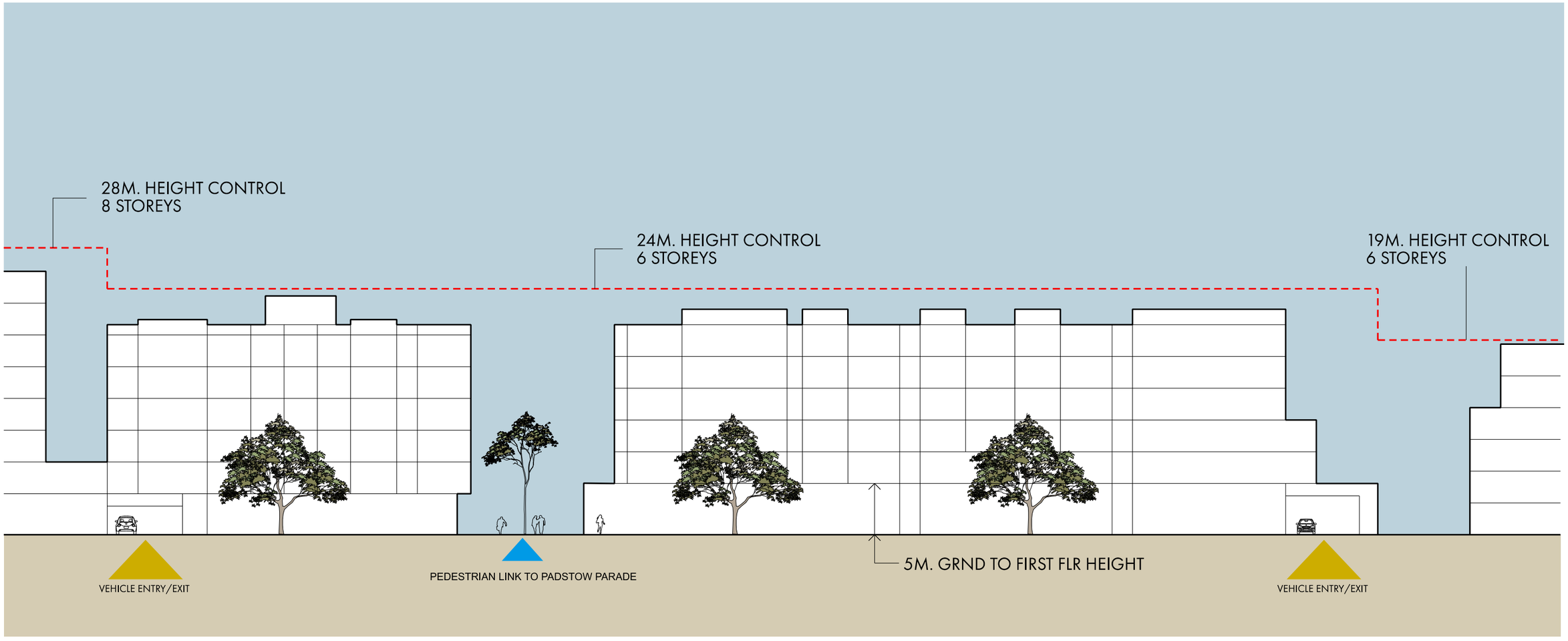

WEST ELEVATION (SEGERS AVENUE)

0 5 10 15 20m

1 -17 SEGERS AVENUE PADSTOW

ROSS HOWIESON ARCHITECTS
ABN 58 135 580 693
1402/1 STERLING CIRCUIT CAMPERDOWN 2050
PO BOX 153 BROADWAY 2007
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NSW BOARD OF ARCHITECTS REGISTRATION NO. 3792

PROJECT	DRG. NO.	REVISION	DATE
473	301	02	04.07.2018

AREA SUMMARY 1-5 SEGERS AVE

	RETAIL/COMMERCIAL SQ.M.	1 BEDROOM UNITS	1 BED + STUDY UNITS	2 BEDROOM UNITS	3 BEDROOM UNITS	GROSS FLOOR AREA	SOLAR ACCESS	VENTILATION
GROUND FLOOR	510	1	1	2		780	4	1
LEVEL 1		1	1	7		730	6	4
LEVEL 2		1	1	7		730	6	4
LEVEL 3		1	1	7		730	6	4
LEVEL 4				7	1	715	5	4
LEVEL 5				7	1	715	8	8
TOTAL OF UNIT TYPES		4	4	37	2	4400	35	25
		9%	9%	79%	4%		74%	53%
TOTAL RESIDENTIAL UNITS		47						

SITE AREA (SQ.M.)	1760.4		
ALLOWABLE GFA (SQ.M.)	4401	(2.5:1)	
PROPOSED GFA (SQ.M.)	4401	(2.5:1)	

AREA SUMMARY 7-17 SEGERS AVE

	RETAIL/COMMERCIAL SQ.M.	1 BEDROOM UNITS	1 BED + STUDY UNITS	2 BEDROOM UNITS	3 BEDROOM UNITS	GROSS FLOOR AREA	SOLAR ACCESS	VENTILATION
GROUND FLOOR	1585					1842		4
LEVEL 1	400	1	3	10	3	1930	12	12
LEVEL 2		1	3	13	4	1930	12	12
LEVEL 3			1	17	1	1740	11	12
LEVEL 4			1	17	1	1740	11	12
LEVEL 5		2	1	17		1740	20	12
TOTAL OF UNIT TYPES		4	9	74	9	10922	66	64
		4%	9%	77%	9%		69%	67%
TOTAL RESIDENTIAL UNITS		96						

SITE AREA (SQ.M.)	4369		
ALLOWABLE GFA (SQ.M.)	10923	(2.5:1)	
PROPOSED GFA (SQ.M.)	10922	(2.5:1)	

Appendix D

No.	Date	Description

Swept Path Key
- Vehicle Wheel Path
- Vehicle Body Envelope
- 300mm Vehicle Clearance

North

Drawing Prepared By

PDC Consultants
Level 5, 104 Commonwealth Street
Surry Hills NSW 2010
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w: www.pdcconsultants.com.au
ABN: 70 615 064 670

Architect
Ross Howieson Architects
1402 / 1Sterling Circuit
Camperdown NSW 2050

Client
Bayswater Property Group

Project
1-17 Segers Avenue, Padstow

Project No
0074

Drawing Title
Ground Floor Plan (7-17 Segers Avenue)
8.8m Medium Rigid Vehicle
Site Access, Circulation & Parking Movements

Sheet Status
NOT FOR CONSTRUCTION

Drawing No.
001

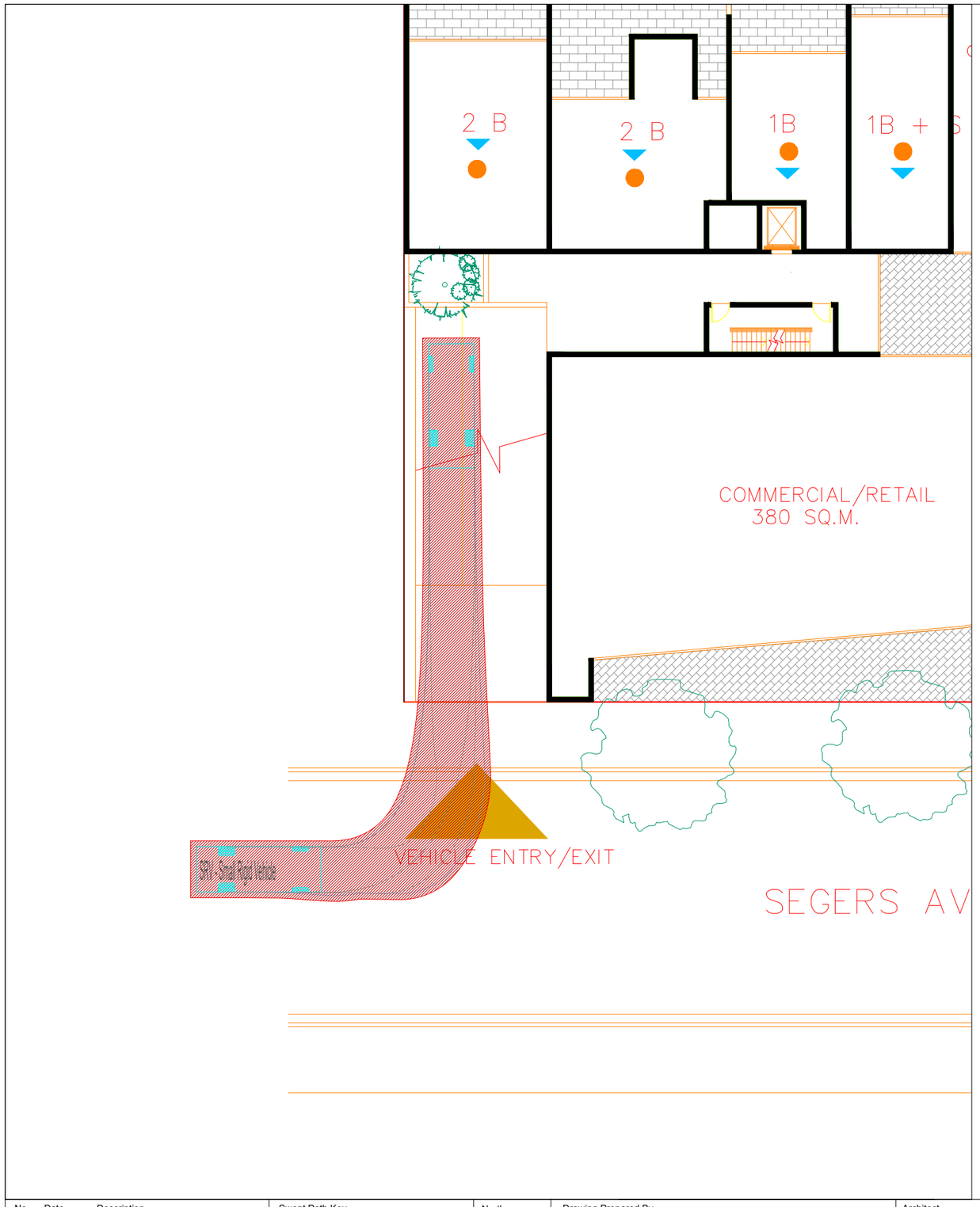
Revision No.
-

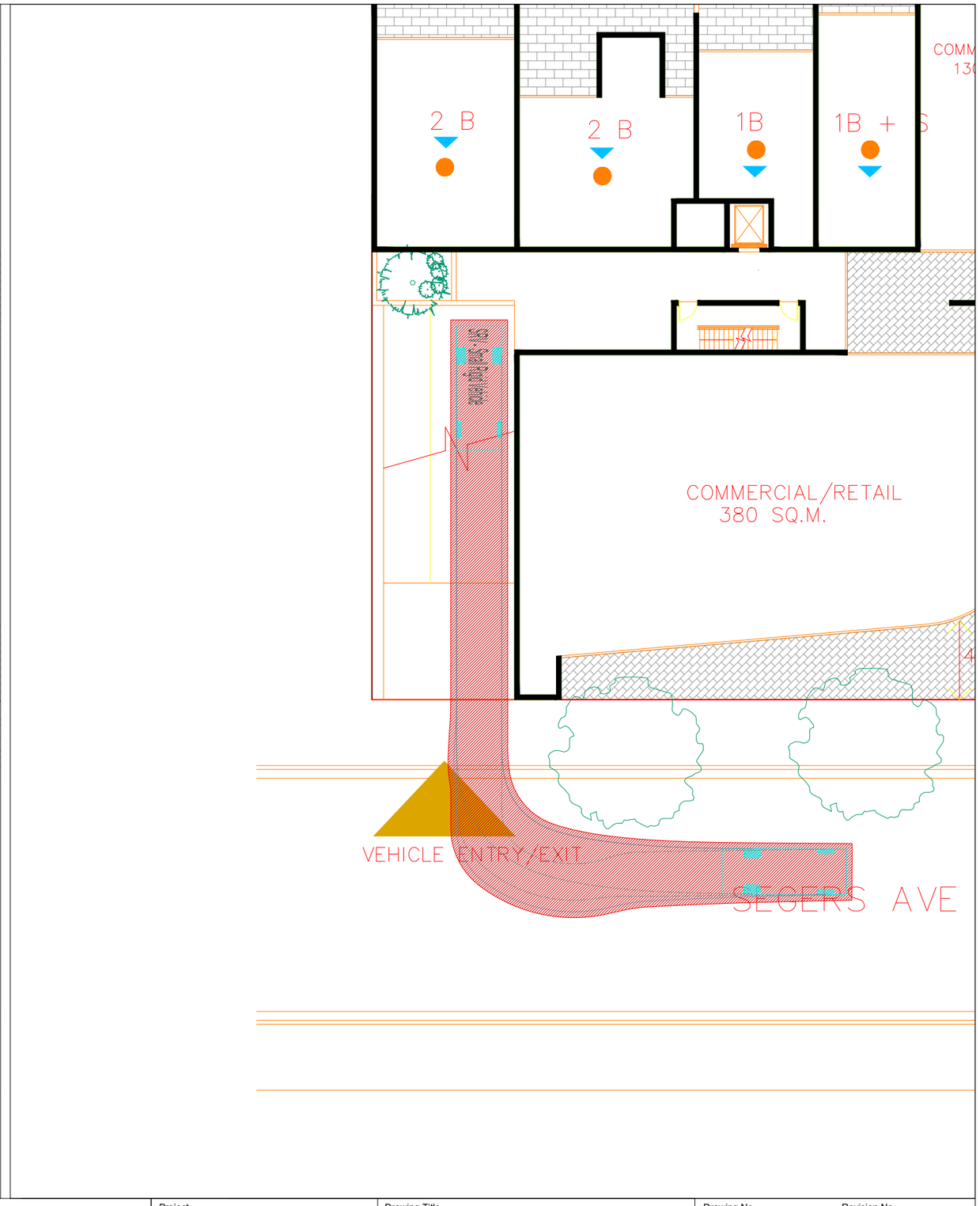
Drawn By
PC

Date
13/09/2018

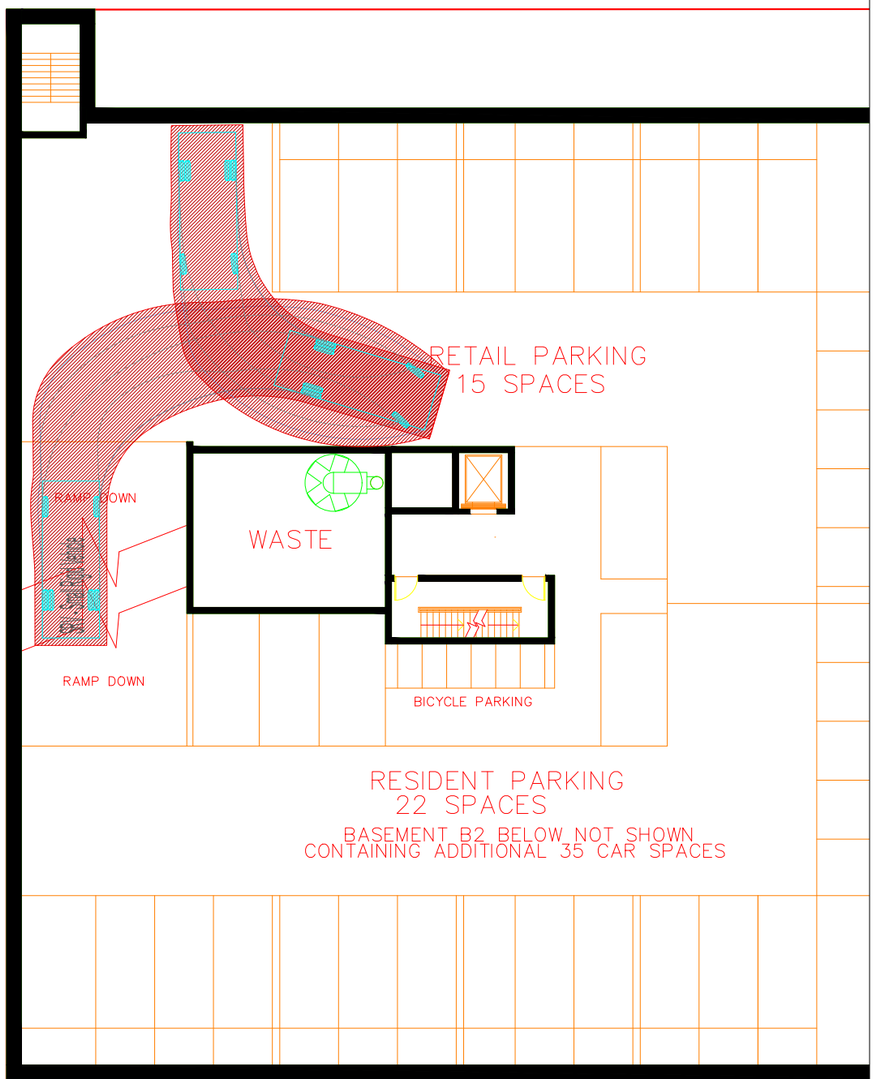
Scale
1:400 @ A3

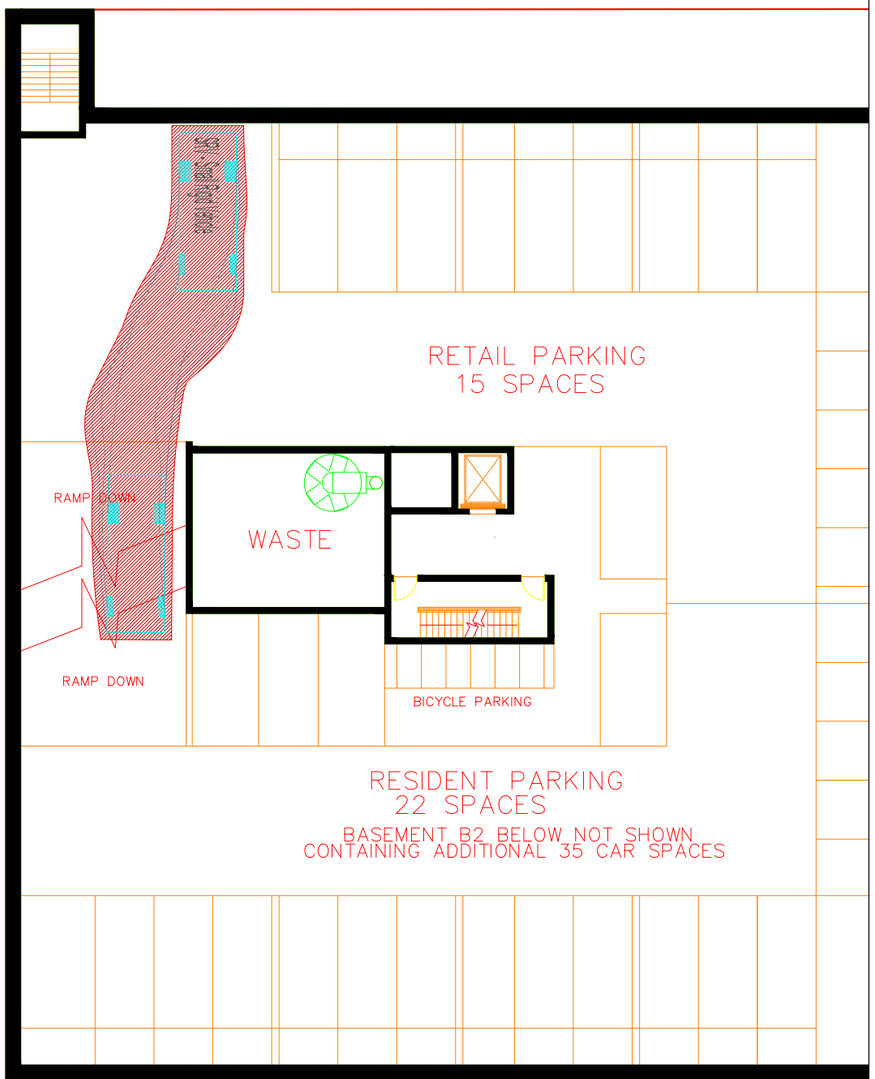
0m 4 8 12 16





No. Date Description	Swept Path Key Vehicle Wheel Path Vehicle Body Envelope 300mm Vehicle Clearance	North	Drawing Prepared By PDC Consultants Level 5, 104 Commonwealth Street Surry Hills NSW 2010 t: +61 2 7900 6514 w: www.pdcconsultants.com.au ABN: 70 615 064 670	Architect Ross Howieson Architects 1402 / 1Sterling Circuit Camperdown NSW 2050 Client Bayswater Property Group	Project 1-17 Segers Avenue, Padstow Project No 0074	Drawing Title Ground Floor Plan (1-5 Segers Avenue) 6.4m Small Rigid Vehicle Site Entry / Exit Movements Sheet Status NOT FOR CONSTRUCTION	Drawing No. 002 Drawn By PC Scale 1:250 @ A3 0m 2 4 6 8	Revision No. - Date 13/09/2018





No. Date Description

Swept Path Key
- Vehicle Wheel Path
- Vehicle Body Envelope
- 300mm Vehicle Clearance

North

Drawing Prepared By

PDC Consultants
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ABN: 70 615 064 670

Architect
Ross Howieson Architects
1402 / 1Sterling Circuit
Camperdown NSW 2050

Client
Bayswater Property Group

Project
1-17 Segers Avenue, Padstow

Project No
0074

Drawing Title
Basement Floor Plan (1-5 Segers Avenue)
6.4m Small Rigid Vehicle
Parking Maneouvres

Sheet Status
NOT FOR CONSTRUCTION

Drawing No.
003

Revision No.
-

Drawn By
PC

Date
13/09/2018

Scale
1:250 @ A3

0m 2 4 6 8