

Environmental Impact Statement

APPENDIX

C

TRAFFIC IMPACT ASSESSMENT

# Waste Recycling Facility

## Traffic Impact Assessment

59915106

Prepared for  
Enviro Recycling

9 June 2016



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# 1 Introduction

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## 1.1 Background

Cardno has been engaged by Enviro Recycling to prepare a Traffic Impact Assessment (TIA) for the proposed expansion to an existing waste recycling facility within the Revesby industrial area, consolidating the two sites located at 37-55 and 57- 67 Violet Street, Revesby.

The proposed expansion is to increase the existing operation capacity from 30,000 tonnes of waste per annum to 250,000 tonnes of waste per annum. General hours of operation for the proposed waste recycling facility is proposed, as follows:

- > 6am – 12am Monday to Friday;
- > 6am – 12am on Saturdays; and
- > No work on Sundays and public holidays.

## 1.2 Scope of Works

The following scope of works have been undertaken as part of this study:

- > Collate and review background information;
- > Liaise with Bankstown Council to understand previous site approvals and clarify traffic assessment requirements;
- > Undertake a site inspection to establish the site context, surrounding land uses and general local traffic operations;
- > Review sustainable transport provisions;
- > Estimate the traffic generation and trip distribution of the proposed development based on site operational characteristics;
- > Undertake AM and PM peak period traffic surveys during a typical weekday for five (5) key intersections;
- > Develop a spreadsheet model for the adjoining road network representing the following scenarios:
  - Base year (2015);
  - Future year (2017);
  - Future year (2017) plus development traffic;
  - Future year, plus 10 years (2027);
  - Future year, plus 10 years (2027) plus development traffic.
- > Undertake SIDRA modelling for five (5) key intersections. In the adjoining road network as follows:
  - Milperra Road (A34) / Marigold Street (signalised intersection);
  - Milperra Road (A34) / Violet Street (priority controlled intersection);
  - Milperra Road (A34) / Queen Street (signalised intersection);
  - Queen Street / Gordon Parker Street (priority controlled intersection); and
  - Marigold Street / Carrington Street / Green Street (priority controlled intersection).
- > Undertake swept path analysis confirm on-site vehicle manoeuvrability;
- > Review the potential impacts to on-street parking;
- > Assess the adequacy of off-street car parking provision; and

- > Review the geometric design of off-street car parking facilities in accordance with the relevant standards and guidelines.

### **1.3 Reference Documents**

The following documents have been reviewed and referenced in this report:

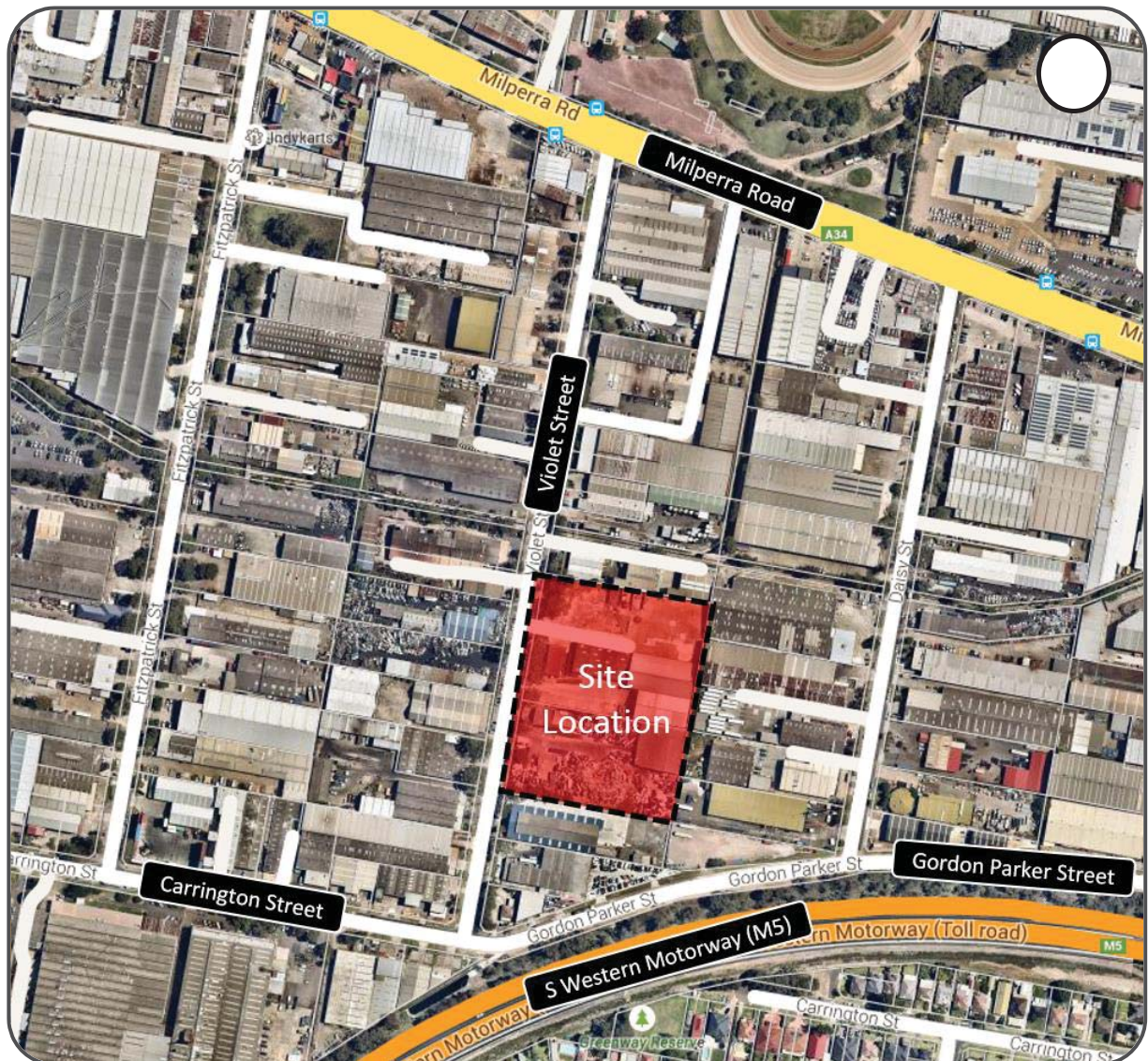
- > Guide to Traffic Generating Developments (RTA, 2002);
- > Bankstown Development Control Plan (2015);
- > Guide to Traffic Generating Developments – Updated traffic surveys (RMS, TDT 2013/04a); and
- > Australian Standards 2890.

## 2 Existing Conditions

### 2.1 Site Location

The subject site is located within the Revesby industrial area at 37-55 and 57-67 Violet Street, Revesby as shown in **Figure 2-1**. The subject site has a street frontage of approximately 160m to Violet Street and comprise a total area of approximately 19,300m<sup>2</sup>.

**Figure 2-1 Subject Site Location**



Background Image: NearMap

No. 37-55 is currently occupied by the existing waste recycling facility. The site is configured with two vehicular access driveways to Violet Street, however, all vehicular movements predominantly use the one driveway to enter and exit the site. The existing site is also configured with one (1) weighbridge.

No. 57-67 is previously occupied by a car wrecking yard which has since been cleared of crushed cars. The site is also configured with two vehicular access driveways to Violet Street.

## 2.2 Existing Road Network

The adjoining road network in the vicinity of the site consists of:

- > Violet Street;
- > Milperra Road;
- > Carrington Street;
- > Gordon Parker Street; and
- > South-Western Motorway (M5).

### 2.2.1 Schedule of Road Classification

Roads and Maritime Services (RMS) in partnership with local government established an administrative framework of State, Regional, and Local Road categories to help manage the extensive network of roads.

State roads are managed and financed by RMS, and Regional / Local Roads are managed and financed by councils. Notwithstanding, Regional Roads perform an intermediate function between the main arterial network of State Roads and council controlled Local Roads and therefore receives financial assistance from RMS.

### 2.2.2 South-Western Motorway (M5)

The South Western Motorway (M5) is classified as a State Road and is a tolled motorway in south-western Sydney operated by Interlink Roads. The road generally runs in an east-west direction, forming part of the M5 route and the Sydney Orbital Network. On and off-ramps are provided on Henry Lawson Drive, The River Road and Fairford Road. It is a two-way road generally configured with three lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island. On street parking is not permitted along both sides of the motorway.

### 2.2.3 Milperra Road

Milperra Road is classified as a State Road and generally runs in an east-west direction, connecting Henry Lawson Drive and The River Road. It is a two-way road generally configured with three lanes in each direction. Clearway restrictions apply along both sides of the road during commuter peak periods and on-street parking is generally permitted outside of those times, subject to sign posted restrictions.

### 2.2.4 Violet Street

Violet Street is a Local Road and generally runs in a north-south direction, linking Milperra Road and Gordon Parker Street. It is a two-way road generally configured with one lane in each direction. Unrestricted on-street parking is generally permitted along both sides of the road. (Parallel parking and 90° parking.)

### 2.2.5 Carrington Street

Carrington Street is a Local Road and generally runs in an east-west direction, connecting Violet Street and Marigold Street. It is two-way road generally configured with one lane in each direction. Unrestricted on-street parking is generally permitted along both sides of the road.

### 2.2.6 Gordon Parker Street

Gordon Parker Street is a Local Road and generally runs in an east-west direction, connecting Violet Street and Victoria Street. It is a two-way road generally configured with one lane in each direction. Unrestricted parking is generally permitted along both sides of the road.

## 2.3 Existing Traffic Volumes

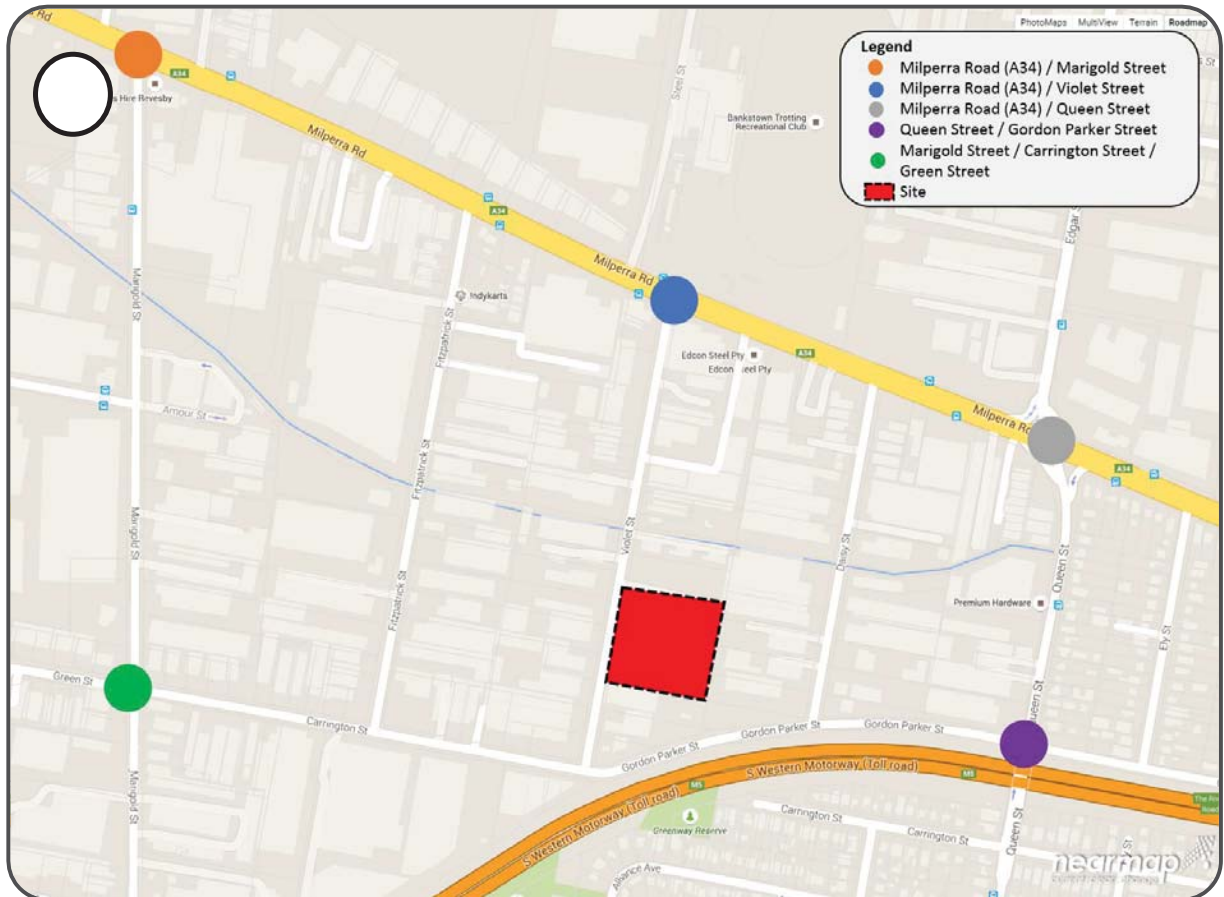
Traffic surveys were undertaken for five (5) key intersections in the vicinity of the subject site between 7:00am-10:00am and 4:00pm-7:00pm on Tuesday 12<sup>th</sup> May 2015. Refer to **Appendix A** for the traffic survey data. The five intersections surveyed are as follows:

- > Milperra Road / Marigold Street

- > Milperra Road / Violet Street
- > Milperra Road / Queen Street
- > Queen Street / Gordon Parker Street
- > Marigold Street / Carrington Street/ Green Street

These intersection locations have been illustrated in **Figure 2-2**.

**Figure 2-2 Traffic survey count locations**



Background Image: NearMap

Further to the above, tube counts were undertaken in accordance with Bankstown City Council's consultation letter over a 3 weekday period between Tuesday 15 March 2016 and Thursday 17 March 2016 at the following locations:

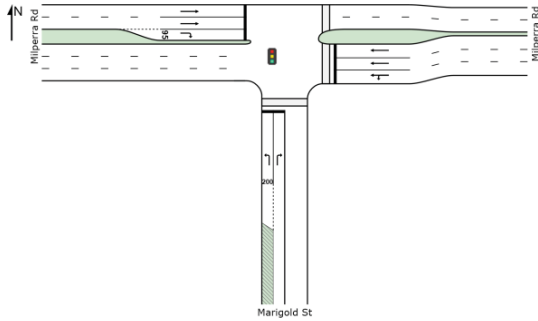
- > Marigold Street Mid-Block;
- > Carrington Street Mid-Block;
- > Gordon Parker Street Mid-Block;
- > Violet Street South of Milperra Road;
- > Violet Street North of Carrington Street;
- > Daisy Street Mid-Block; and
- > Queen Street Mid-Block.

It is pertinent to note that the tube count data collected along Violet Street north of Carrington Street were corrupted and the tube count at this location was repeated between Tuesday 22 March 2016 and Thursday 24 March 2016. The full tube count data is available in **Appendix D**.

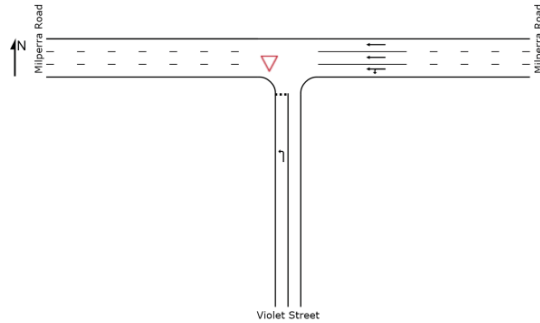
**2.3.2 Intersection layouts**

The existing intersection layouts for the five surveyed intersections have been provided in **Figure 2-3** to **Figure 2-7**.

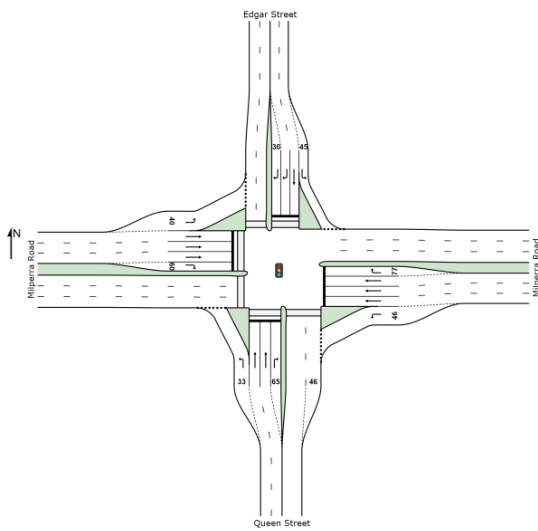
**Figure 2-3 Milperra Road / Marigold Street**



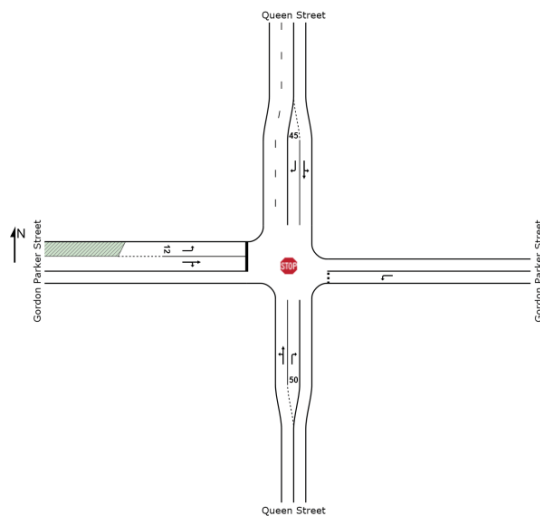
**Figure 2-4 Milperra Road/ Violet Street**



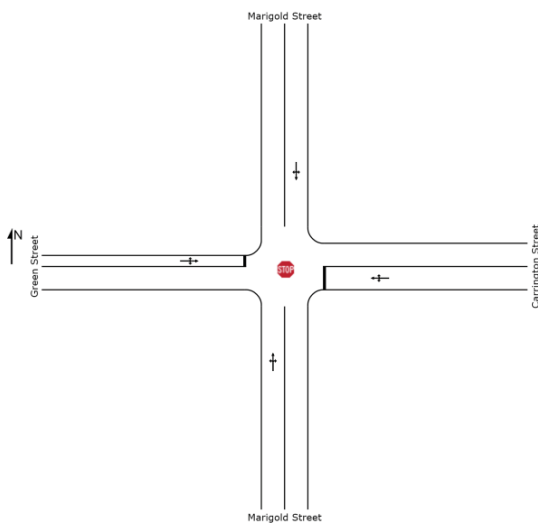
**Figure 2-5 Milperra Road/ Queen Street**



**Figure 2-6 Queen Street/ Gordon Parker Street**



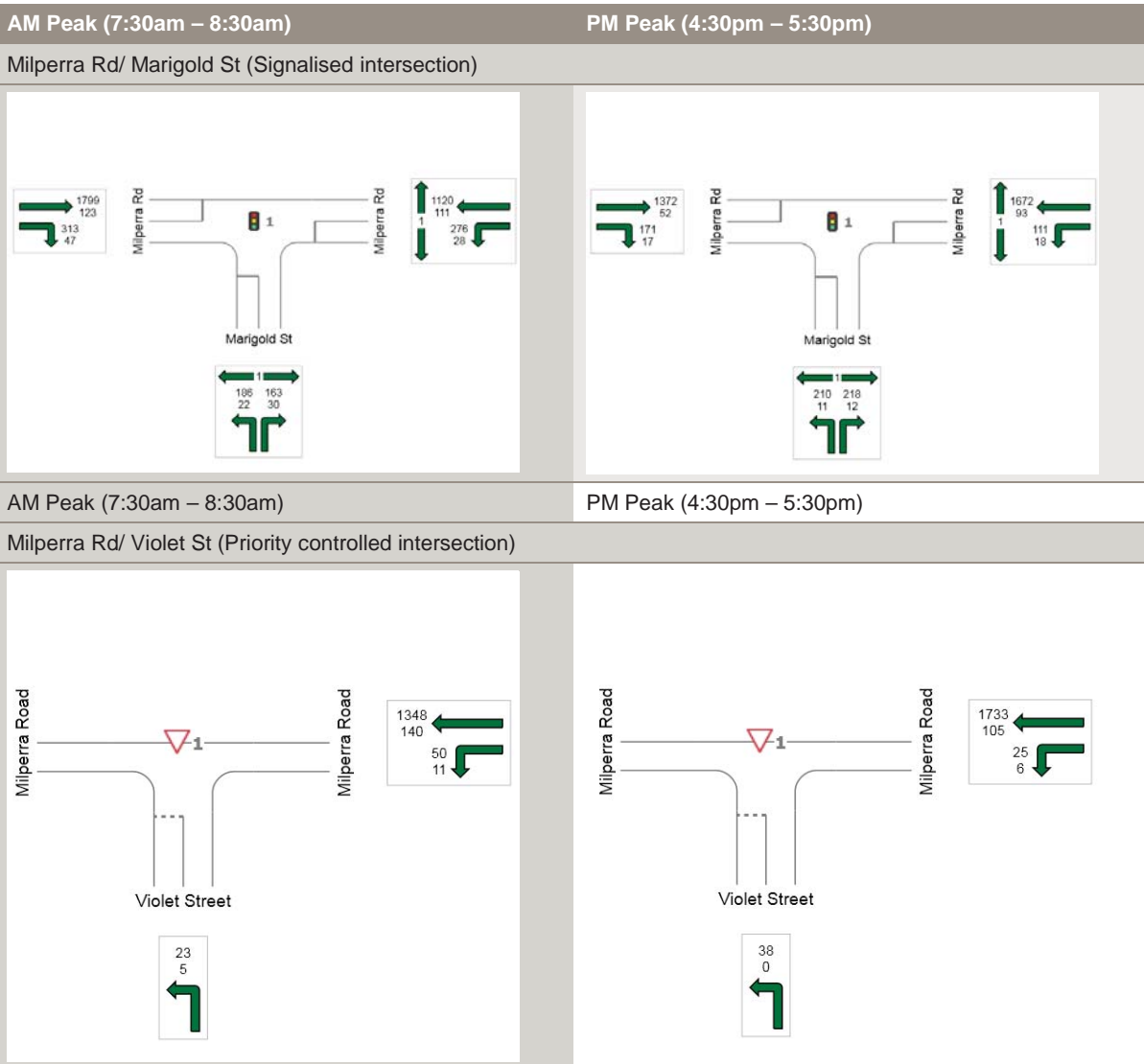
**Figure 2-7 Marigold Street/ Carrington Street/ Green Street**



**2.3.3 Existing traffic volumes**

**Table 2-1** summarises the AM and PM peak hour traffic volumes for the five surveyed intersections. AM peak time was determined to be 7:30am – 8:30am and PM peak was 4:30pm – 5:30pm based on the survey count. The heavy vehicle counts were separated from light vehicle counts in the survey, thus the top number in the below figures refers to the total recorded movements and the bottom number refers to the heavy vehicle counts. The pedestrian counts are shown with the arrows going perpendicular to the road.

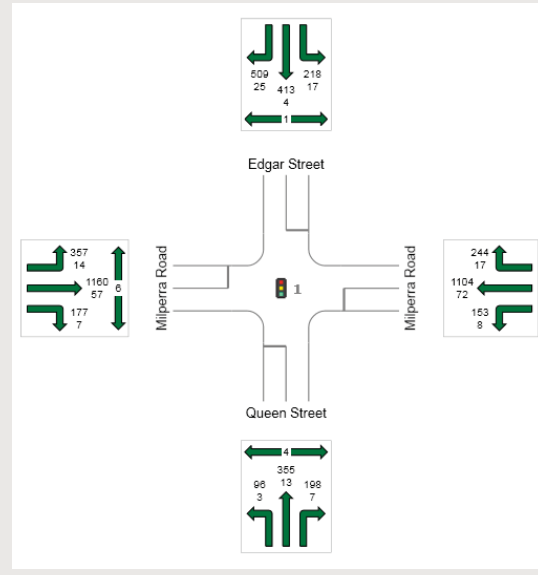
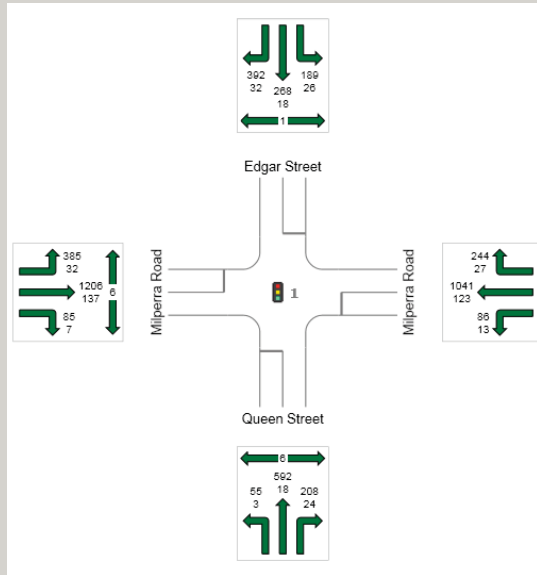
**Table 2-1 Baseline AM and PM traffic flows for 2015**



AM Peak (7:30am – 8:30am)

PM Peak (4:30pm – 5:30pm)

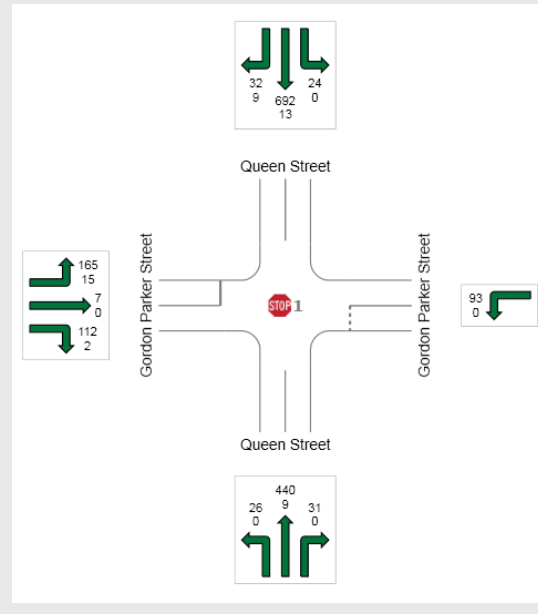
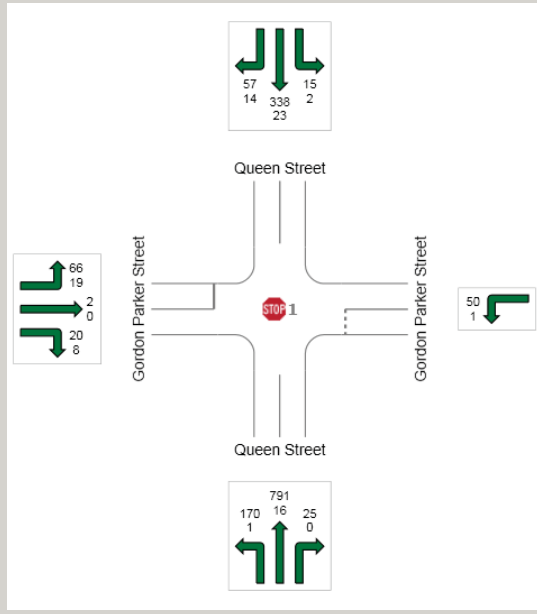
Milperra Rd/ Queen St/ Edgar St (Signalised intersection)

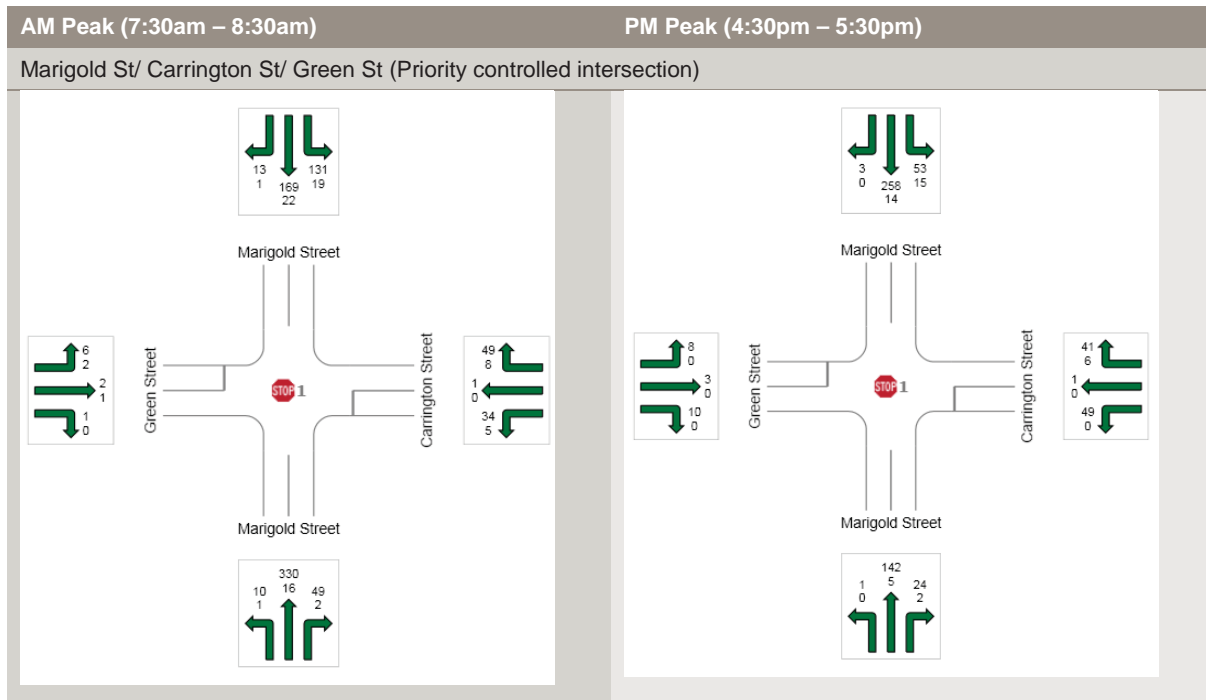


AM Peak (7:30am – 8:30am)

PM Peak (4:30pm – 5:30pm)

Queen St/ Gordon Parker St (Priority controlled intersection)





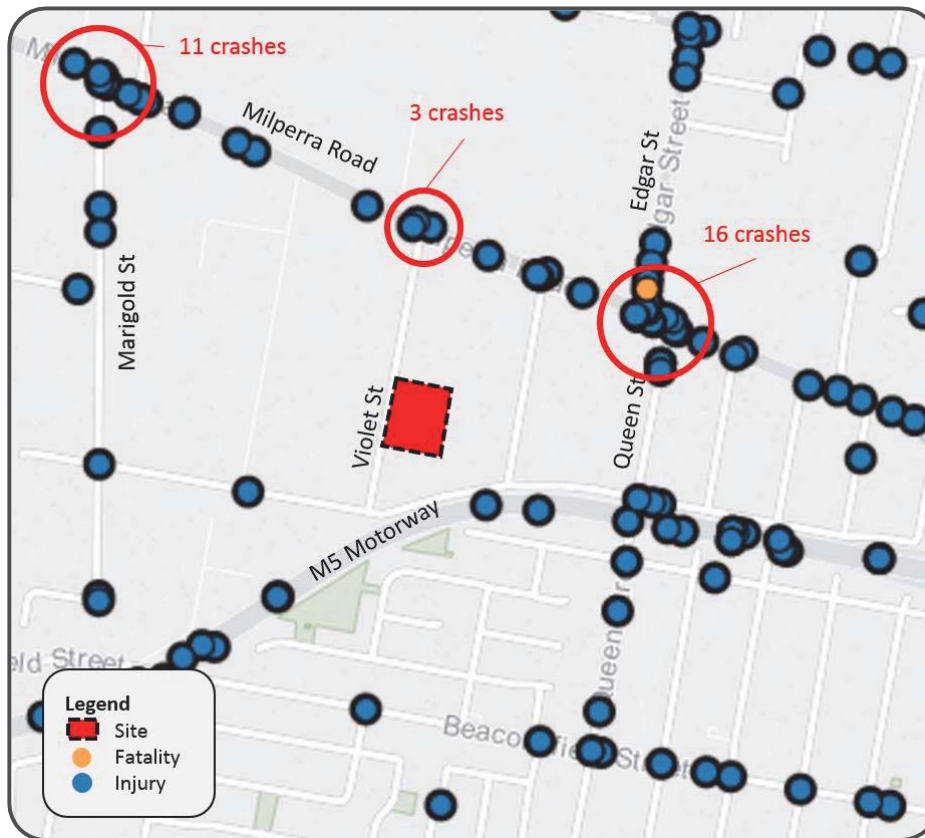
## 2.4 Crash Analysis

The RMS Centre for Road Safety provides recorded crash data which identifies locations where road crashes have occurred. There was one fatality recorded in the surrounding road network in 2012 which occurred north of the Milperra Road / Edgar Street intersection.

**Figure 2-8** presents the locations of all recorded crashes between the years of 2009 and 2013 and shows that most crashes close to the site occur at intersections, especially with Milperra Road. The three intersections most likely to have issues are the following:

- > Milperra Road and Violet Street: 3 crashes;
- > Milperra Road and Marigold Street: 11 crashes;
- > Milperra Road and Queen/ Edgar Streets: 16 crashes.

Figure 2-8 Crash data in vicinity of proposed development site



Source: RMS Centre for Road Safety

## 2.5 Existing Public Transport Services

The nearest train station – Revesby Station is located approximately 3.2km (approx. 40 minutes) walking distance south-east of the site which services the T2 Airport, Inner West & South Line linking Macarthur and Sydney CBD. Given the significant walking distance to the station from the subject site, it is unlikely train services will provide an attractive alternate mode of transport.

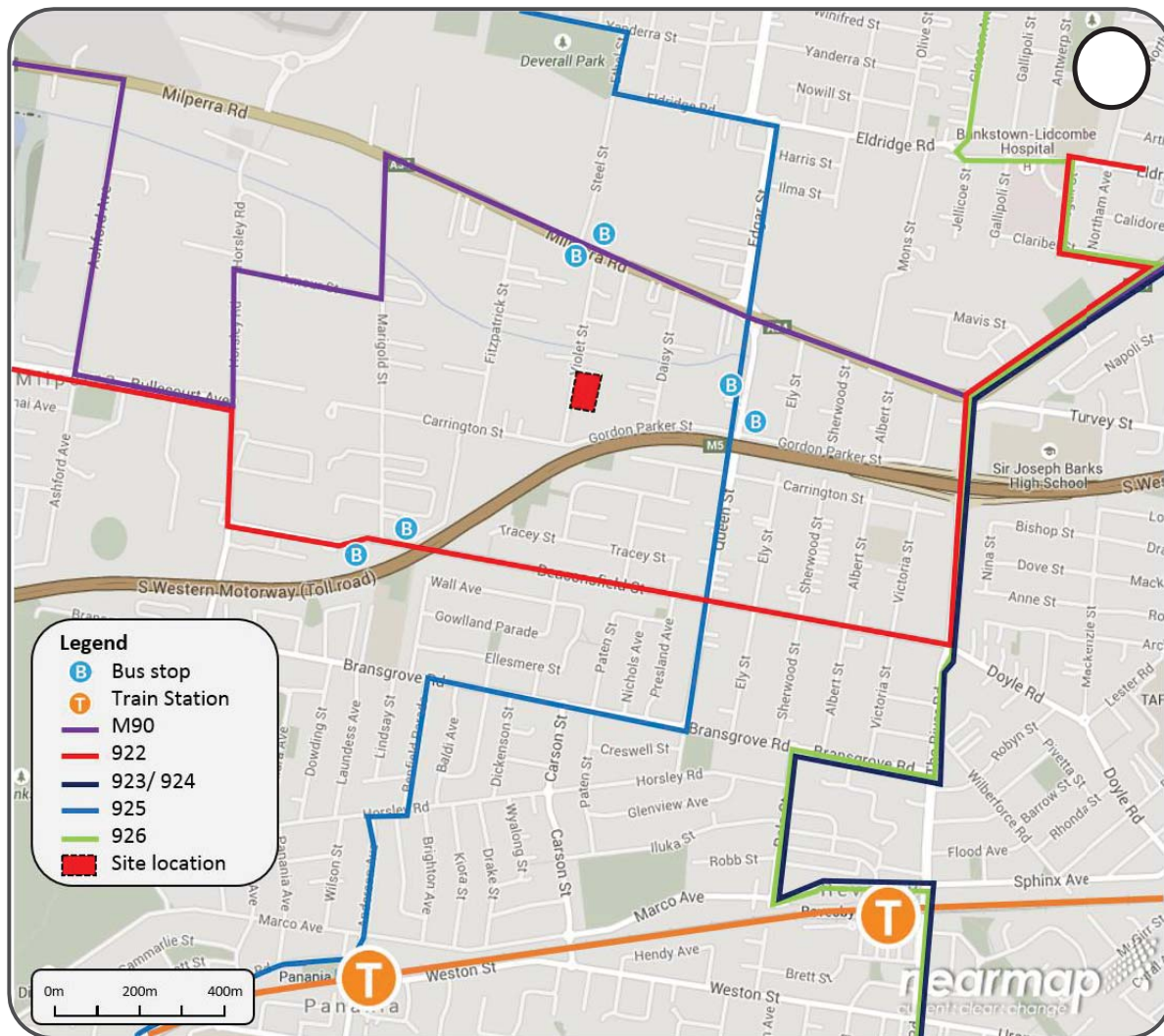
Notwithstanding the above, the subject site is located within approximately 400m (approx. 4 minutes) walking distance from the closest bus stops servicing route M90 in both directions on Milperra Road, which is part of the Sydney's Metrobus network that provides high-frequency, high-capacity links between key employment and growth centres across Sydney. Route M90 links between Liverpool and Burwood via Moorebank, Milperra, Bankstown, Greenacre, Chullora and Strathfield. Furthermore, bus stops along Queen Street are accessible within approximately 1,000m walking distance, servicing route 922 and 925.

The service frequencies of the abovementioned bus routes in the immediate vicinity of the site are summarised in **Table 2-2**, and a summary of all existing public transport services are illustrated in **Figure 2-9**.

**Table 2-2 Bus Servicing Frequency Summary**

Bus Route	Service	Weekday Service Frequency		
		AM Peak	PM Peak	Off Peak
M90	Liverpool to Burwood	10 minutes	10 minutes	15 minutes
	Burwood to Liverpool	10 minutes	10 minutes	15 minutes
922	East Hills to Bankstown	30 minutes	30 minutes	30 minutes
	Bankstown to East Hills	30 minutes	30 minutes	30 minutes
925	East Hills to Lidcombe	30 minutes	60 minutes	30 minutes
	Lidcombe to East Hills	30 minutes	60 minutes	30 minutes

**Figure 2-9 Public Transport Map**



Background Image: NearMap

## 2.6 Existing Active Transport Facilities

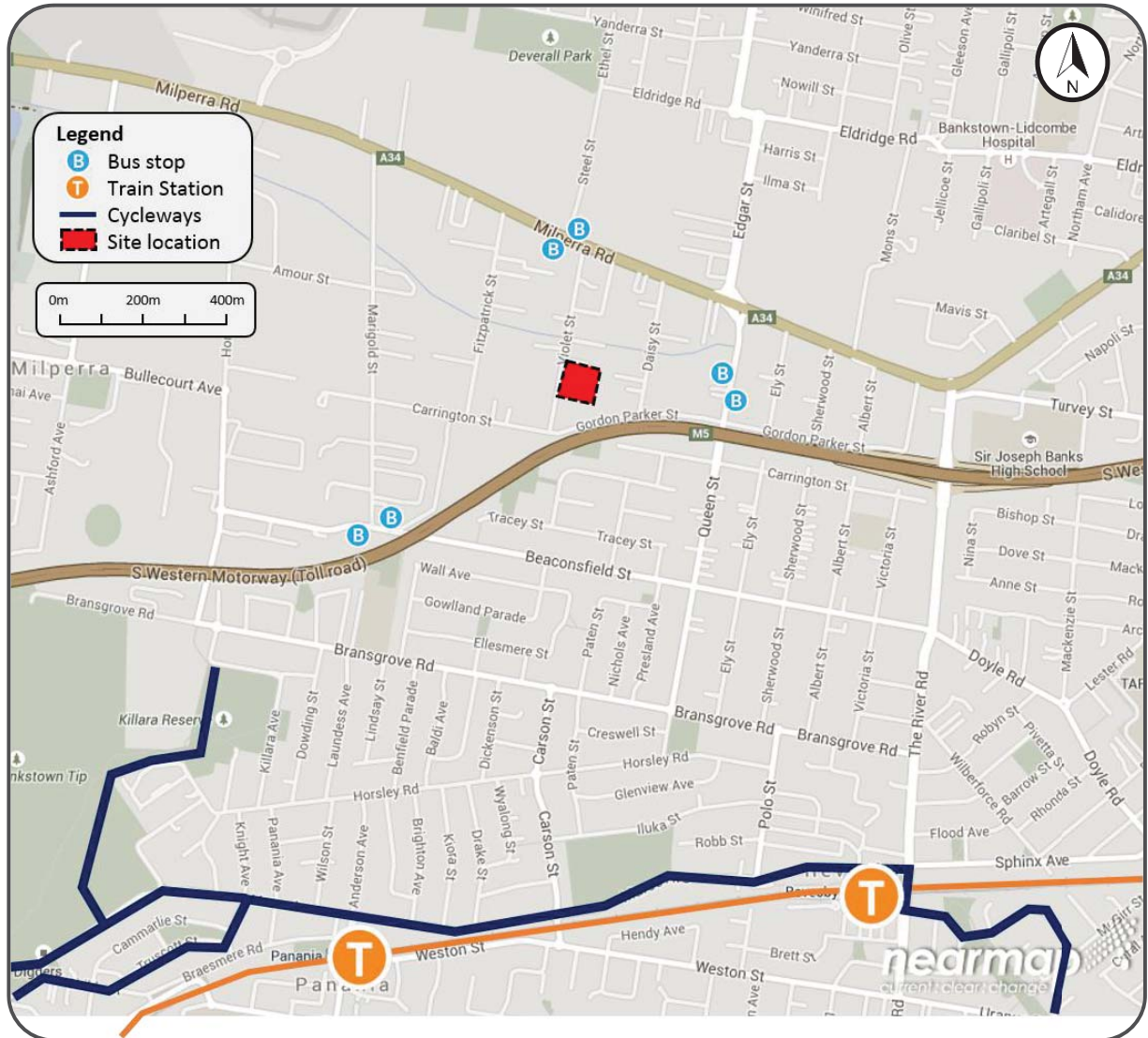
Due to the industrial nature of the local area, there are limited provisions for active transport facilities in the vicinity of the subject site and no footpaths has been provided along both sides of Violet Street.

It is also pertinent to note that there are no pedestrian / cyclist crossing facilities in the vicinity of the site. Specifically, it may be difficult for pedestrians / cyclist to cross Milperra Road to / from Violet Street which

could potentially impact the attractiveness of taking bus route M90 that stops along the northern side of Milperra Road.

The nearest cycleway is provided in the vicinity of the railway corridor which is approximately 3.2km to the south, shown in **Figure 2-10**.

**Figure 2-10 Existing cycleway map**



Source: Cycling around Bankstown Local Government Area and NearMap

# 3 Proposed Development

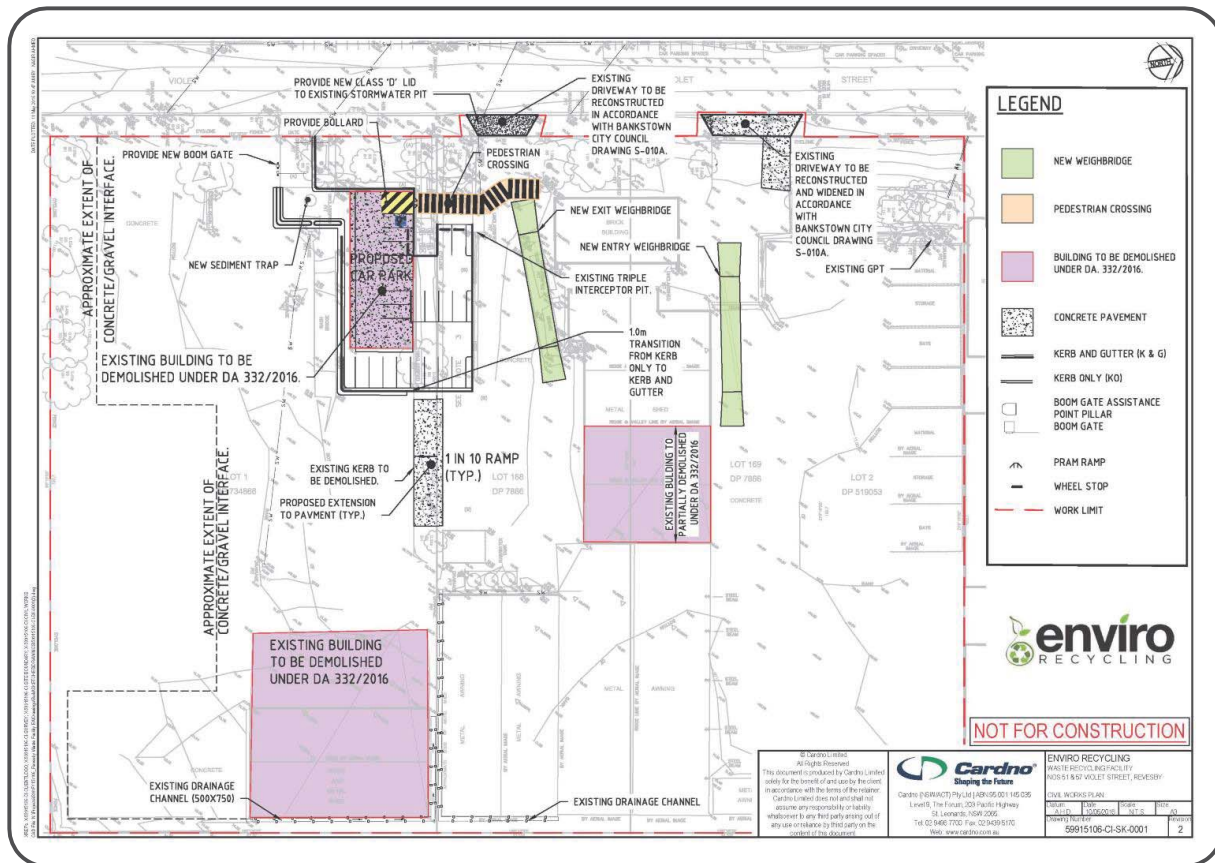
## 3.1 Development Proposal

The proposed development involves the expansion of an existing waste recycling facility within the Revesby industrial area, consolidating the two sites located at 37-55 and 57-67 Violet Street, Revesby. The proposed expansion seeks to increase the existing operation capacity from 30,000 tonnes of waste per annum to 250,000 tonnes of waste per annum and will comprise the following works:

- > Demolition of existing building slab;
- > Widening of two existing driveways;
- > Provision of weighbridges on entry and exit to the site; and
- > Provision of a new staff car parking area comprising 20 car spaces with vehicular access via existing separate driveway.

The site plan for the proposed development has been prepared by Cardno and is reproduced in **Figure 3-1**.

**Figure 3-1 Proposed Development**



## 3.2 Proposed Site Access Arrangement

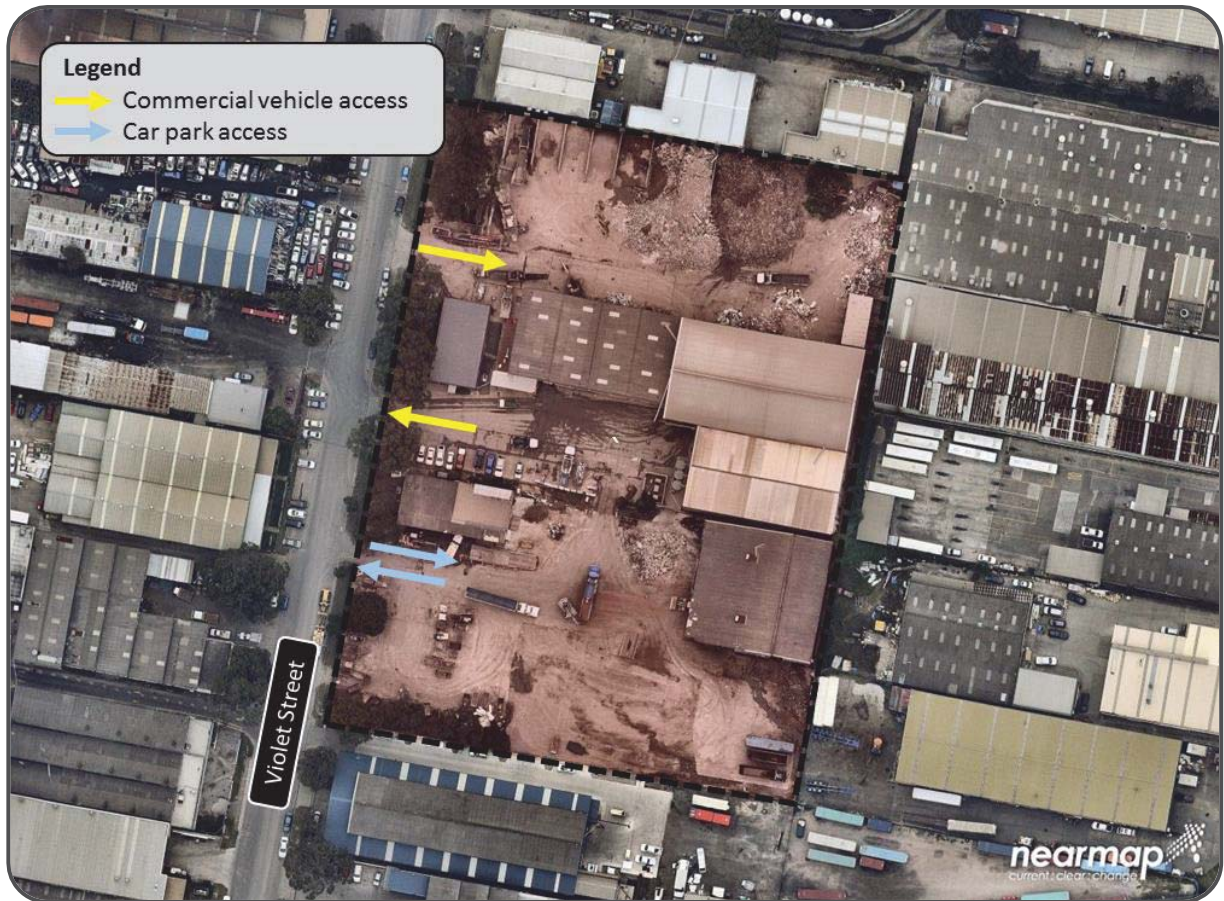
The subject site is currently configured with four (4) existing crossovers to Violet Street, two (2) for 37-55 Violet Street and two (2) for 57-67 Violet Street.

The existing two crossovers at 37-55 Violet Street are to be retained to provide access to commercial vehicles. The northern crossover is proposed to facilitate entry-only movements and the southern crossover is proposed to facilitate exit-only movements. These crossovers are also proposed to be widened to better accommodate the left-turn swept path of a 19m semi-trailer.

The northern crossover at 57-67 Violet Street is proposed to be retained to provide access to the new staff car park and the southern crossover is not proposed to be used at present.

The proposed site access arrangement is illustrated in **Figure 3-2**.

**Figure 3-2 Site Access Arrangement**



Background Image: NearMap

### 3.3 Loading and Servicing

The proposed development is expected to operate as per existing albeit an increase in the number of trucks to satisfy the increased operational capacity.

The waste facility is currently serviced using a variety of commercial vehicles including single unit trucks as well as articulated trucks up to 19m in length. Forklifts are also used on-site to assist with the loading / unloading activities and arrange waste stockpiles.

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## 4 Traffic Impact Assessment

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### 4.1 Traffic Generation

An indication of the traffic generation potential of various land uses is typically provided by reference to the *RMS Guide*, notwithstanding, the *RMS Guide* does not nominate a traffic generation rate applicable to a waste recycling facility.

Accordingly, an empirical assessment has been undertaken to estimate the traffic generation potential of the proposed development.

### 4.2 Empirical Traffic Generation Assessment

It is understood by Cardno that the proposed expansion to the existing waste facility will cater for the processing of up to 250,000t of recyclable waste per annum and operated by 25 staff (not all staff are present on-site at the same time).

The traffic generation potential of the development has therefore been estimated based on the following operational characteristics:

- > The operational hours of the proposed waste recycling facility is as follows:
  - Weekdays between 6am – 12am;
  - Saturdays between 6am – 12am; and
  - No work on Sundays and public holidays.
- > Trucks have been separated into two categories and the respective loads has been assumed as follows;
  - Large trucks:
    - > Semi-trailer – 17 tonnes;
    - > Tipper trailer – 16 tonnes; and
    - > Average large truck loads are 16.5 tonnes.
  - Small trucks:
    - > Rigid tipper – 13 tonnes;
    - > Large skip truck – 9 tonnes;
    - > Small skip truck – 3 tonnes;
    - > Average small truck loads are 8.3 tonnes; and
    - > Average small truck loads are 8.3 tonnes.
- > It has been assumed that 70% of the loads will be undertaken using small trucks and 30% of the loads will be undertaken using large trucks; and
- > It has been assumed that the number of trips generated by the proposed development will be uniform over the whole day.

Based on the aforementioned operation characteristics of the proposed development, it has been estimated that the proposed development could potentially generate up to 18 truck movements plus 25 staff movements during the AM and PM peak hour.

The full calculations of the truck movements are set out in **Table 4-1** and estimated trip generation is summarised in **Table 4-2**.

**Table 4-1 Truck Movements Calculation**

Estimate vehicle movements for Waste Component					
<b>Capacity of Waste</b>	250,000	tonnes	<b>Assumptions</b>		
<b>Number of open days per year</b>	Total days/ year	365		days	
	Sundays	52		days	
	Public holidays	11		days	
	<b>Total days open/ year</b>	<b>302</b>	<b>days</b>		
<b>Total tonnes/ day</b>	250,000	tonnes ÷ operational days	<b>Vehicle Load assumptions</b>		
	302	days	Semi-Trailer	17 t	
	<b>827.81</b>	<b>t/ day</b>	Tipper Trailer	16 t	
			Rigid Tipper	13 t	
<b>Average truck loads</b>	Average weight of small trucks	8.3	t	Large skip truck	9 t
	Average weight of large trucks	16.5	t	Small skip truck	3 t
<b>Average load/ truck type</b>	Small truck	579.47	t	<b>Truck load projections (as supplied by client)</b>	
	Large truck	248.34	t	small truck loads	70%
				large truck loads	30%
<b>Number of truck type</b>	Small truck	70	veh		
	Large truck	15	veh		
<b>Total vehicles IN</b>		85	veh		
<b>Vehicle movements/ day</b>		170	veh		

**Table 4-2 Trip Generation Summary**

	AM		PM	
	IN	OUT	IN	OUT
Truck Movements	9 trips	9 trips	9 trips	9 trips
Staff Movements	25 trips	0 trips	0 trips	25 trips
<b>TOTAL</b>	<b>34 trips</b>	<b>9 trips</b>	<b>9 trips</b>	<b>34 trips</b>

### 4.3 Trip Distribution

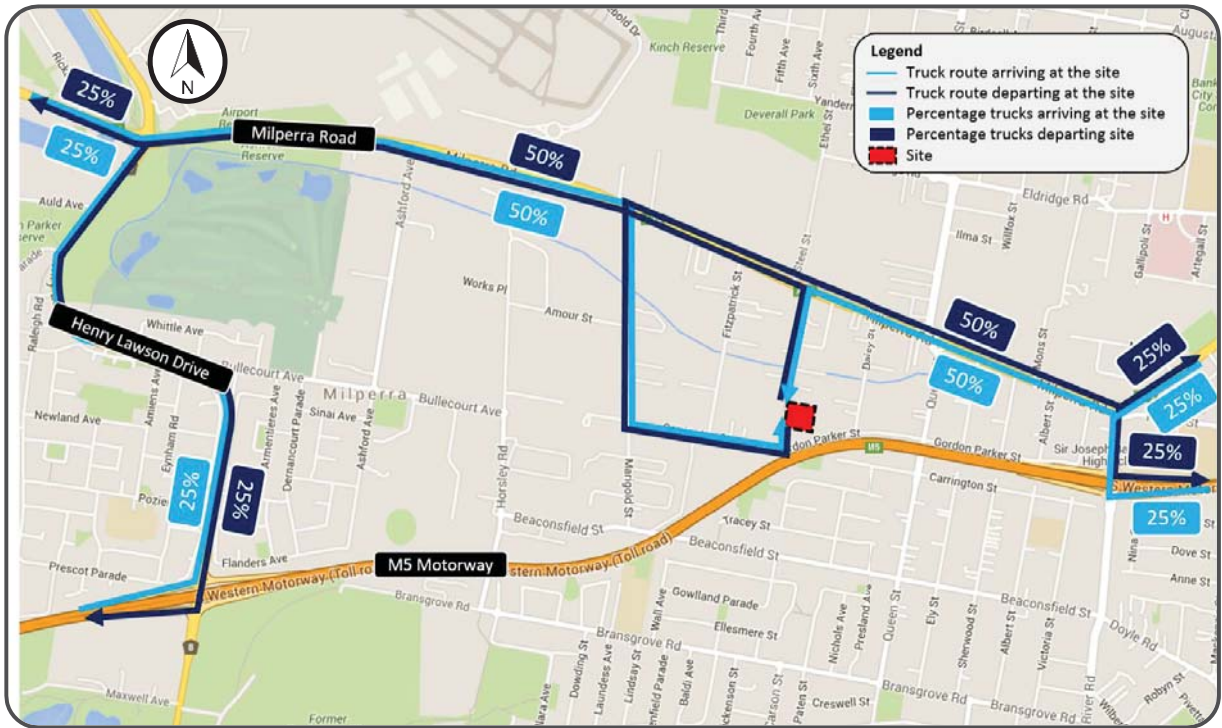
The trip distribution of the proposed development has been based on the following assumptions:

#### Truck Movements

The trip distribution of the truck movements has been estimated on the following assumptions:

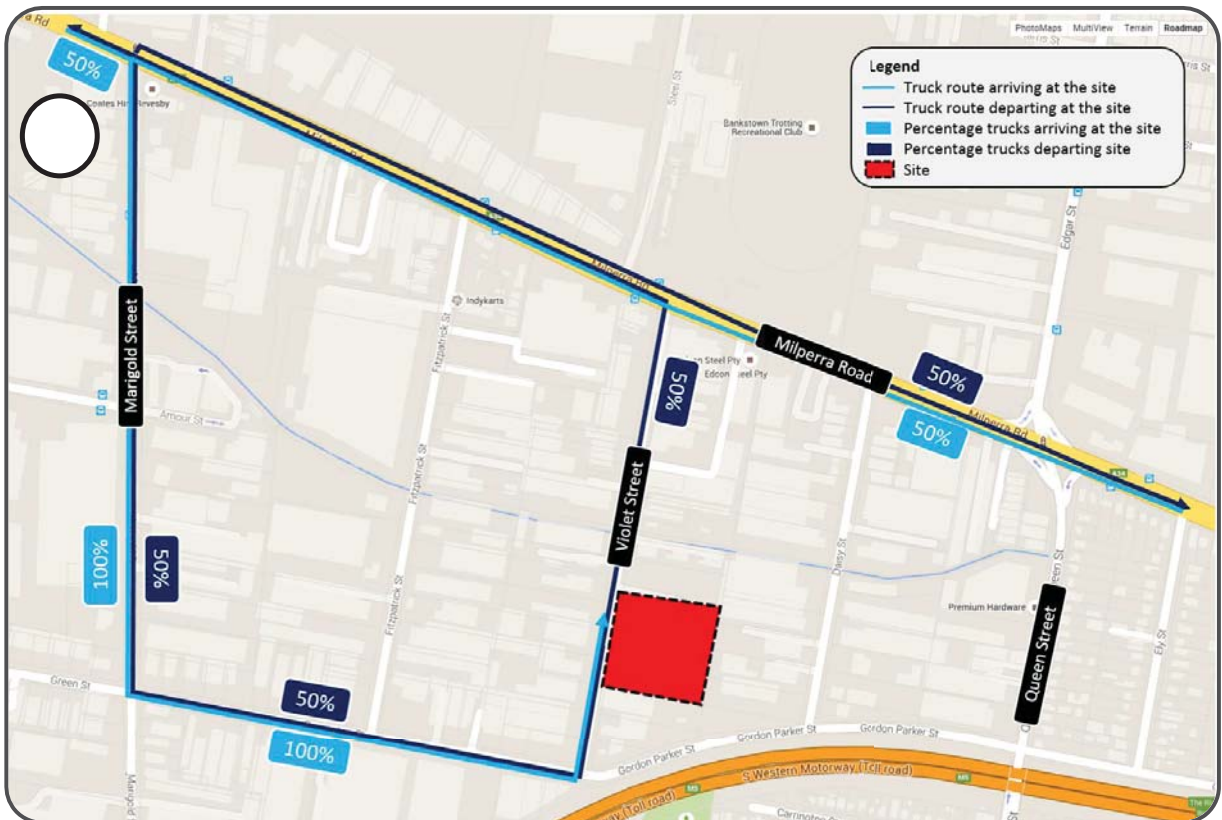
- > All truck movements to / from the site will adhere to the heavy vehicle route map discussed in **Section 6.1**.
- > Historical operational data has indicated that 50% of vehicles will arrive / depart to the east of the site, and 50% will arrive / depart to the west.
- > Assumptions for arriving truck movements are as follows:
  - Information from the client states that trucks arriving at the site will be in constant radio contact with the site. If the site is full, trucks will be ordered to stay parked on Gordon Parker Street or Carrington Street until further instruction to avoid causing congestion along Violet Street. Assumptions due to this are as follows:
    - > All trucks entering the site from the east (50%) will arrive using the northern side of Violet Street;
    - > All trucks entering the site from the west (50%) will use Carrington Street and Marigold Street.
    - > All trucks have been assumed to use either Milperra Road or the M5 Motorway to arrive at the site.
- > Assumption for departing truck movements are as follows:
  - Due to the “no right turn” onto Milperra Road from Violet Street all eastbound traffic will be filtered via Carrington Street and Marigold Street on the southern side of Violet Street. Hereafter traffic will be distributed 50% in each direction.
  - The westbound traffic is assumed to use the intersection of Violet Street and Milperra Road to turn left from Violet Street.
- > All trucks are required to use the prescribed truck routes provided to arrive at the site, dependent on their locations (east or west of the site). The majority of these routes will follow the RMS Heavy Vehicle routes. To reduce traffic travelling along Queen Street, trucks departing to the east will be required to use Carrington Street and Marigold Street to turn right onto Milperra Road.
- > A summary of the truck distribution is illustrated in **Figure 4-1** and zoomed to a local level in **Figure 4-2**.

Figure 4-1 Truck Distribution – Wider Area



Background Image: NearMap

Figure 4-2 Truck Distribution – Local Area



Background Image: NearMap

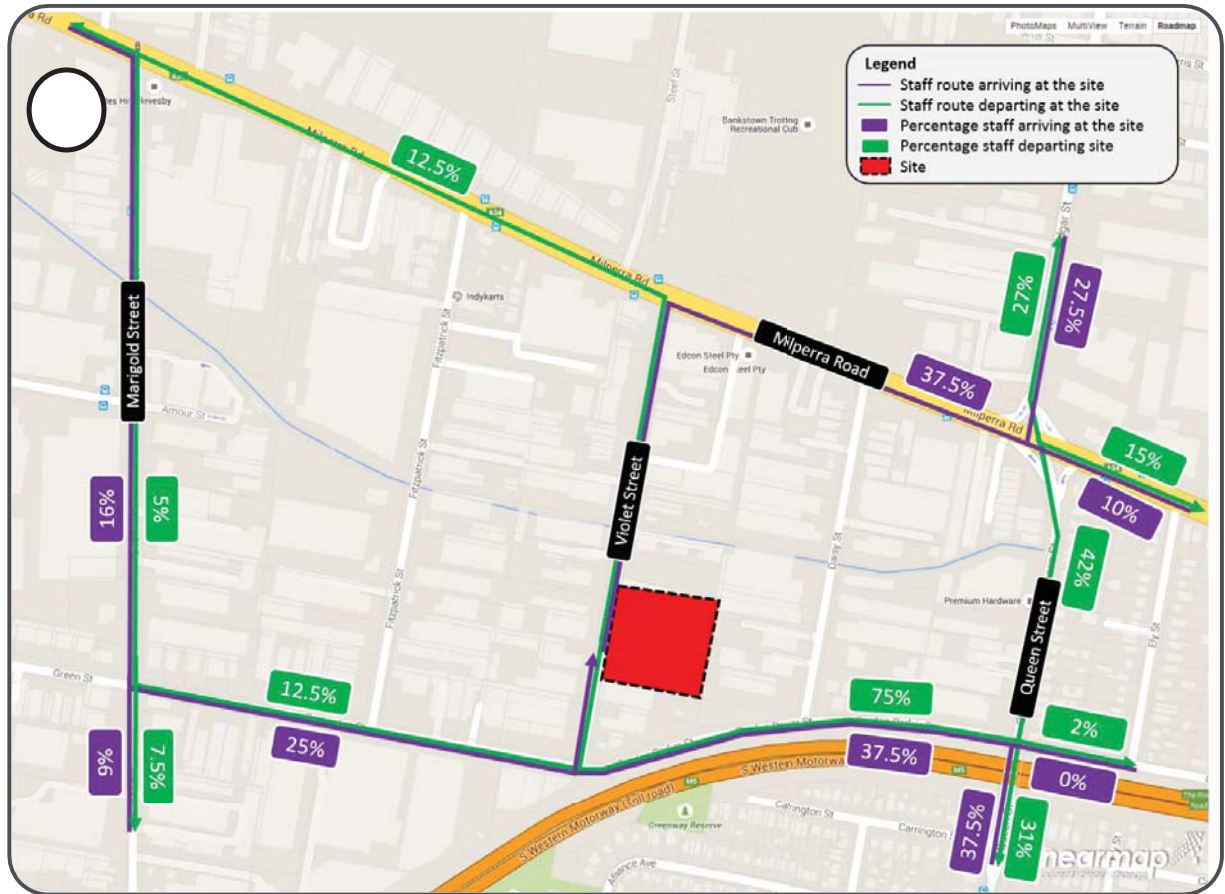
### Staff assumptions

The following assumptions have been made in regards to staff vehicular movements:

- > All 25 staff will arrive during the AM peak hour and depart during the PM peak hour.
- > Assumptions trip generation is split 25% to the west, and the remaining 75% heading in the north, east and south directions. North, east and southbound traffic will head east from the site.
- > Traffic is distributed according to 2015 light vehicle counts

A summary of the arrival and departures from the site is shown in **Figure 4-3**.

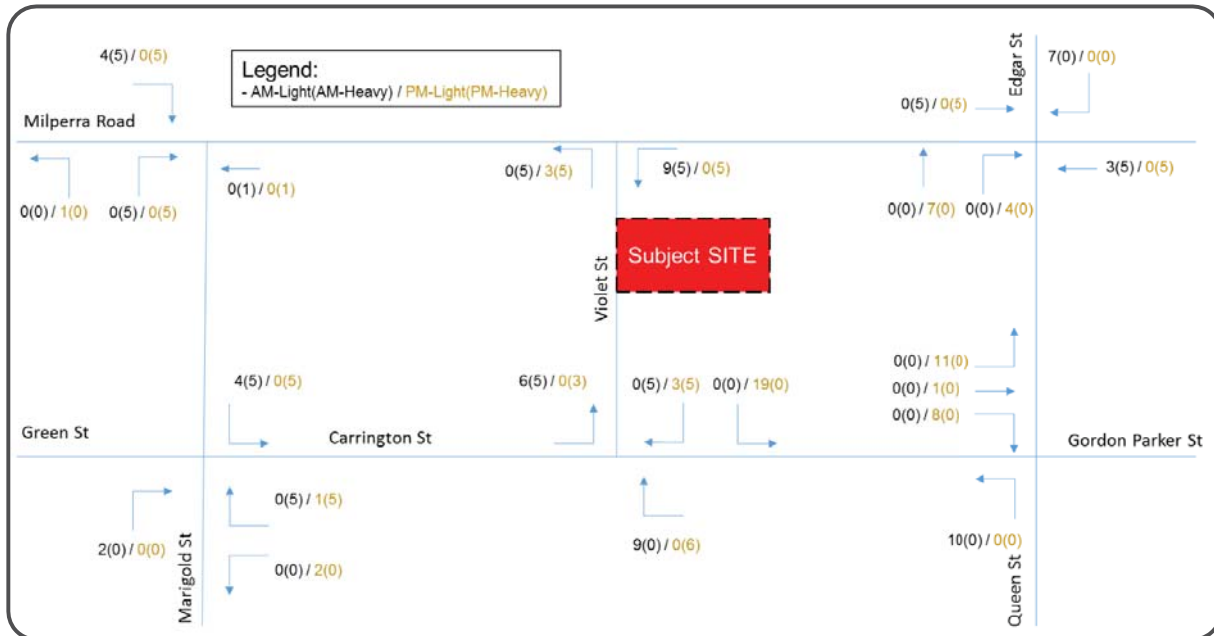
**Figure 4-3 Staff route trip distribution**



Background Image: NearMap

Based on the above, **Figure 4-4** have been prepared to show the estimated increase in turning movements in the vicinity of the subject site following full site development.

**Figure 4-4 Estimated Development Traffic Volumes and Turning Movements**



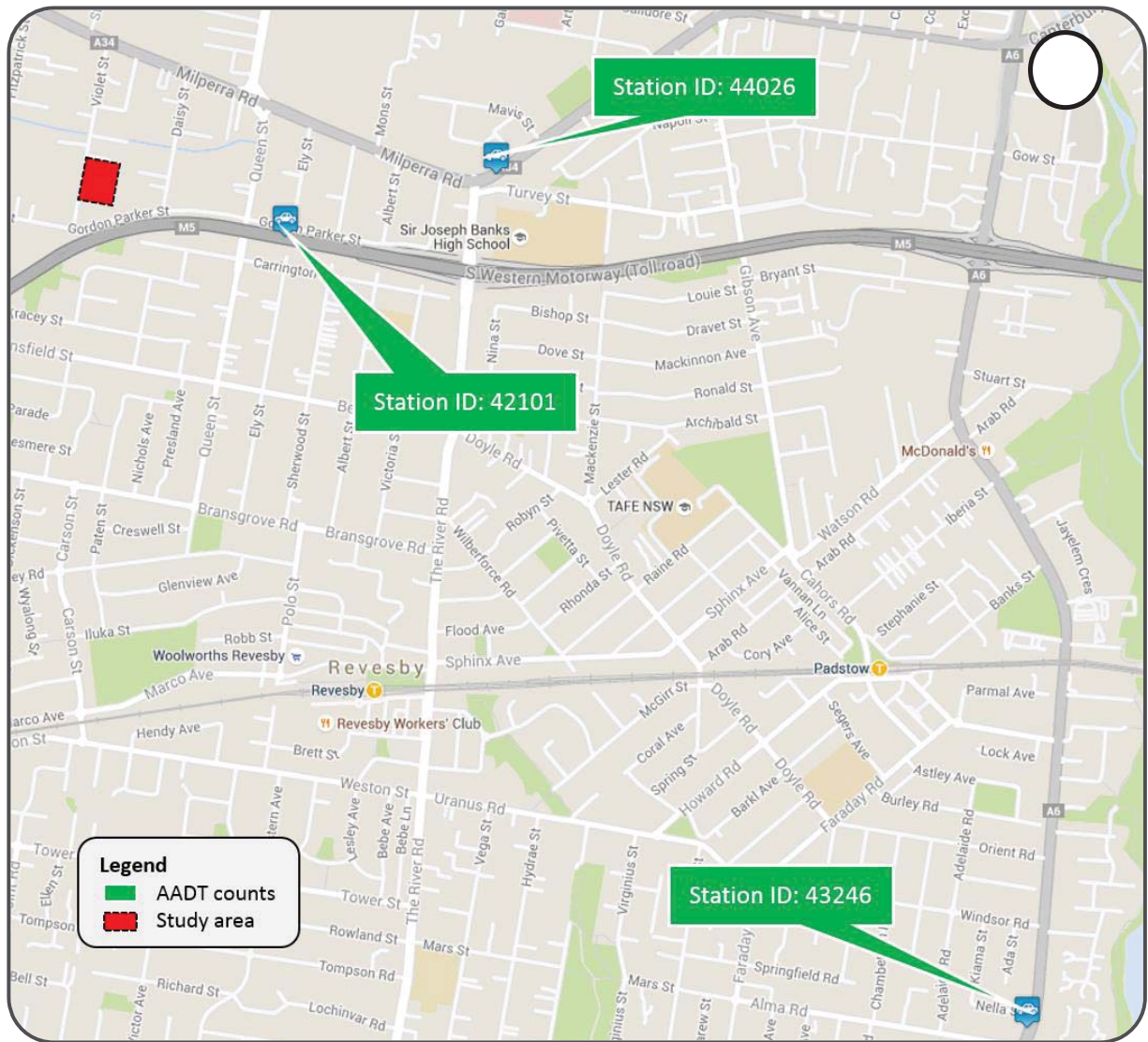
#### 4.4 Base Year and Future Year Scenarios

Spreadsheet models were developed as part of this traffic study to estimate the AM and PM peak hour turning movements having considered for the following scenarios:

- Base year (2015);
- Future year (2017);
- Future year (2017) plus development traffic;
- Future year, plus 10 years (2027);
- Future year, plus 10 years (2027) plus development traffic.

The average annual growth of the road network was calculated using a weighted average of the historical AADT from three roads in close proximity to the site, shown in **Figure 4-5**. These roads are the Canterbury Road, Revesby (Station ID: 44026), South Western Motorway M5, Revesby (Station ID: 42101) and Davies Road, Padstow (Station ID: 43246). This historical annual growth rate for traffic on these key roads in the vicinity of the site provides an empirical basis for forecasting background traffic growth as part of this traffic impact assessment.

Figure 4-5 Historical AADT traffic locations



Background Image: RMS AADT map

The historical AADT data has been provided in **Appendix A** with a summary shown in **Table 4-3**. Which shows that Davis Road has had the greatest increase in traffic flows, with an average annual increase of 2.5% per year. Canterbury Road had an average annual increase of 1.7% while the M5 motorway had approximately 0.7% increase in traffic as shown in **Table 4-3**.

**Table 4-3 Historical traffic counts and growth at each Station ID**

Station ID	Number of years of AADT	Total growth (%)	Average annual growth
44026 (Canterbury Road)	2012 - 2014	3.5%	1.7%
42101 (South Western Motorway- M5)	2006 - 2013	4.3%	0.7%
43246 (Davies Road)	2006 - 2015	22.8%	2.5%

Source: RMS AADT data

A weighted distribution was then completed to account for the varying traffic volumes on each of the roads shown in **Table 4-4**.

**Table 4-4 Weighted distribution of traffic growth**

Station ID	Average annual growth	2015 forecast traffic volume	% of total traffic volume	Weighted distribution
44026 (Canterbury Road)	1.7%	51,689	27.2%	0.46
42101 (South Western Motorway- M5)	0.7%	93,585	49.4%	0.35
43246 (Davies Road)	2.5%	44,339	23.4%	0.59
Total		189,613	100%	1.39%

Using the weighted distribution, the average annual increase in traffic volume was found to be 1.39%. This annual traffic growth rate has been adopted to calculate background traffic growth rate for the purposes of the future year scenarios. The spreadsheet models are attached in **Appendix B**.

## 4.5 Intersection Operation

The traffic implications of the development proposal on the surrounding intersections has been assessed using SIDRA 6.1 software, and the criteria for evaluating the results of SIDRA analysis is summarised in **Table 4-5**.

**Table 4-5 Level of Service Criteria for Intersections**

Level of Service	Average Delay per Vehicle (sec/veh)	Traffic Signals, Roundabout	Giveaway & Stop Signs
A	< 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 & 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	> 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires additional capacity.

Source: *Guide to Traffic Generating Developments (RMS, 2002)*

### 4.5.2 Milperra Road / Marigold Street

The SIDRA assessment of the Milperra Road / Marigold Street intersection for various scenarios are summarised in **Table 4-6**, with full results attached in **Appendix C**.

**Table 4-6 Milperra Rd/ Marigold St Intersection SIDRA Results**

Scenario	AM Peak			PM Peak		
	DoS	Delay (sec)	LoS	DoS	Delay (sec)	LoS
2015 Base	0.803	18.5	B	0.744	19.5	B
2017 Base (No Development)	0.827	19.1	B	0.765	20.1	B
2017 Base + Development	0.828	19.7	B	0.797	20.4	B
2027 Base (No Development)	0.888	21.7	B	0.804	24.4	B
2027 Base + Development	0.895	22.2	B	0.818	25.4	B

On the basis of the above SIDRA results, the intersection will operate satisfactorily at a LoS of B during both the AM and PM peak hour for all scenarios.

#### 4.5.3 Milperra Road/ Violet Street

The SIDRA assessment of the Milperra Road / Violet Street intersection for various scenarios are summarised in **Table 4-7**, with full results attached in **Appendix C**.

**Table 4-7 Milperra Rd/ Violet St intersection summary**

Scenario	AM Peak			PM Peak		
	DoS	Delay (sec)	LoS	DoS	Delay (sec)	LoS
2015 Base	0.014	6.8	A	0.313	6.7	A
2017 Base (No Development)	0.015	6.8	A	0.322	6.7	A
2017 Base + Development	0.019	7.1	A	0.324	6.9	A
2027 Base (No Development)	0.018	7.0	A	0.030	7.1	A
2027 Base + Development	0.022	7.3	A	0.038	7.3	A

On the basis of the above SIDRA results, the intersection will operate satisfactorily at a LoS of A during both the AM and PM peak hour for all scenarios.

#### 4.5.4 Milperra Road/ Queen Street

The SIDRA assessment of the Milperra Road / Queen Street intersection for various scenarios are summarised in **Table 4-8**, with full results attached in **Appendix C**.

**Table 4-8 Milperra Rd/ Queen St intersection summary**

Scenario	AM Peak			PM Peak		
	DoS	Delay (sec)	LoS	DoS	Delay (sec)	LoS
2015 Base	0.968	67.7	E	0.997	62.9	E
2017 Base (No Development)	0.992	78.9	F	0.989	71.4	F
2017 Base + Development	0.997	80.5	F	1.012	74.0	F
2027 Base (No Development)	1.14	194.3	F	1.131	169.1	F
2027 Base + Development	1.144	198.7	F	1.148	179.6	F

On the basis of the above SIDRA results, the intersection is already operating near capacity at a LoS of E during both the AM and PM peak hour.

The intersection will become unsatisfactory in the future year (2017) even without the development traffic and can only be expected to be degraded further when additional traffic volumes are added to the adjoining road network. It is therefore the responsibility of RMS to investigate this intersection and identify potential options to provide additional capacity to accommodate the background traffic growth.

#### 4.5.5 Queen Street/ Gordon Parker Street

The SIDRA assessment of the Queen Street / Gordon Parker Street intersection for various scenarios are summarised in **Table**, with full results attached in **Appendix C**.

**Table 4-9 Queen Street / Gordon Parker Street intersection summary**

Scenario	AM Peak			PM Peak		
	DoS	Delay (sec)	LoS	DoS	Delay (sec)	LoS
2015 Base	0.729	253.1	F	1.440	894.2	F
2017 Base (No Development)	0.848	357.6	F	1.621	1218.7	F
2017 Base + Development	0.841	367.4	F	1.735	1418.6	F
2027 Base (No Development)	2.180	2677.5	F	3.272	4220.1	F
2027 Base + Development	2.251	2772.9	F	3.471	4576.6	F

On the basis of the above SIDRA results, the intersection is currently experiencing significant delays and operating at unsatisfactory LoS of F during both the AM and PM peak hour.

The intersection can only be expected to be degraded further when additional traffic volumes are added to the adjoining road network. It is therefore the responsibility of Council to investigate potential options of increasing the capacity of the intersection including considerations of upgrading the intersection to another control mode (e.g. roundabout) to accommodate not only the existing traffic volumes but also future background traffic growth.

#### 4.5.6 Marigold Street/ Carrington Street/ Green Street

The SIDRA assessment of the Marigold Street / Carrington Street / Green Street intersection for various scenarios are summarised in **Table**, with full results attached in **Appendix C**.

**Table 4-10 Marigold Street/ Carrington Street/ Green Street intersection summary**

Scenario	AM Peak			PM Peak		
	DoS	Delay (sec)	LoS	DoS	Delay (sec)	LoS
2015 Base	0.011	13.7	A	0.091	11.1	A
2017 Base (No Development)	0.011	13.6	A	0.130	13.6	A
2017 Base + Development	0.011	14.0	A	0.108	11.8	A
2027 Base (No Development)	0.013	14.9	B	0.164	14.8	B
2027 Base + Development	0.013	15.1	B	0.189	15.8	B

On the basis of the above SIDRA results, the intersection will operate satisfactorily at a LoS of A during both the AM and PM peak hour up to future year 2017 with development traffic, and continue to operate at satisfactory LoS of B for future year 2027 with development traffic.

## 4.6 Traffic Impact

Based on the above SIDRA analysis, it is considered that the traffic generated by the proposed development will have negligible impacts on the LoS of the key intersections in the vicinity of the site.

Further to the above, **Table 4-11** and **Table 4-12** have been prepared to compare the additional traffic generated from the proposed development and the existing traffic volumes recorded on the road network. The comparison shows that the increase in traffic volume is generally less than 2% at all key intersections and could not be expected to compromise the function of the adjoining road network.

**Table 4-11 Traffic Volume Comparison at Key Intersections – AM Peak Hour**

Intersection	AM			
	Existing	Additional	Total	% Change
Milperra Road / Marigold Street	3,216 (641)	4 (11)	3,220 (652)	0.4%
Milperra Road / Violet Street	3,307 (55)	9 (10)	3,316 (65)	0.6%
Milperra Road / Queen Street	4,291 (460)	10 (10)	4,301 (470)	0.4%
Queen Street / Gordon Parker Street	1453 (84)	10 (0)	1,463 (84)	0.7%
Marigold Street / Carrington Street / Green Street	721 (77)	6 (10)	727 (87)	2.0%

**Table 4-12 Traffic Volume Comparison at Key Intersections – PM Peak Hour**

Intersection	AM			
	Existing	Additional	Total	% Change
Milperra Road / Marigold Street	3,551 (203)	1 (10)	3,552 (213)	0.3%
Milperra Road / Violet Street	3,325 (179)	3 (10)	3,328 (189)	0.4%
Milperra Road / Queen Street	4,740 (244)	11 (10)	4,751 (254)	0.4%
Queen Street / Gordon Parker Street	1,574 (48)	20 (0)	1,594 (48)	1.2%
Marigold Street / Carrington Street / Green Street	550 (42)	3 (10)	553 (52)	2.2%

It is also pertinent to note the traffic generation estimate has excluded the traffic that would have been generated by the existing site developments which may already exist on the road network and recorded during the traffic surveys.

In any event, the additional traffic generated by the development would be indistinguishable within the variation of traffic volumes experienced daily on the adjoining road network.

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## 5 Parking Assessment

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### 5.1 Empirical Car Parking Assessment

The Bankstown DCP 2015 specifies an off-street car parking requirement for industries and light industries which typically refer to warehouse or factory developments, and therefore is not considered appropriate to assess the off-street car parking requirements for the proposed waste recycling facility.

On the above basis, an empirical assessment has been undertaken to determine the minimum off-street car parking requirements based on the operational characteristics of the proposed waste recycling facility.

The operator of the waste recycling facility has advised Cardno that there are a number of staff who currently carpool, and the average vehicle occupancy rate is estimated to be approximately 1.3 persons per car. It has been previously mentioned that there will be a maximum of 25 staff on site at any one time, corresponding to a minimum provision of 19 car spaces to accommodate its anticipated staff numbers. Furthermore, one (1) courier bay is recommend to be provided.

Accordingly, the proposed waste recycling facility will need to provide a minimum of 20 off-street car parking spaces to satisfy its operational requirements.

### 5.2 Adequacy of Car Parking Provision

The proposed waste recycling facility makes provision for a new staff car parking area comprising 20 spaces including one accessible parking space, thereby satisfying its operational requirements.

### 5.3 Car Park Layout

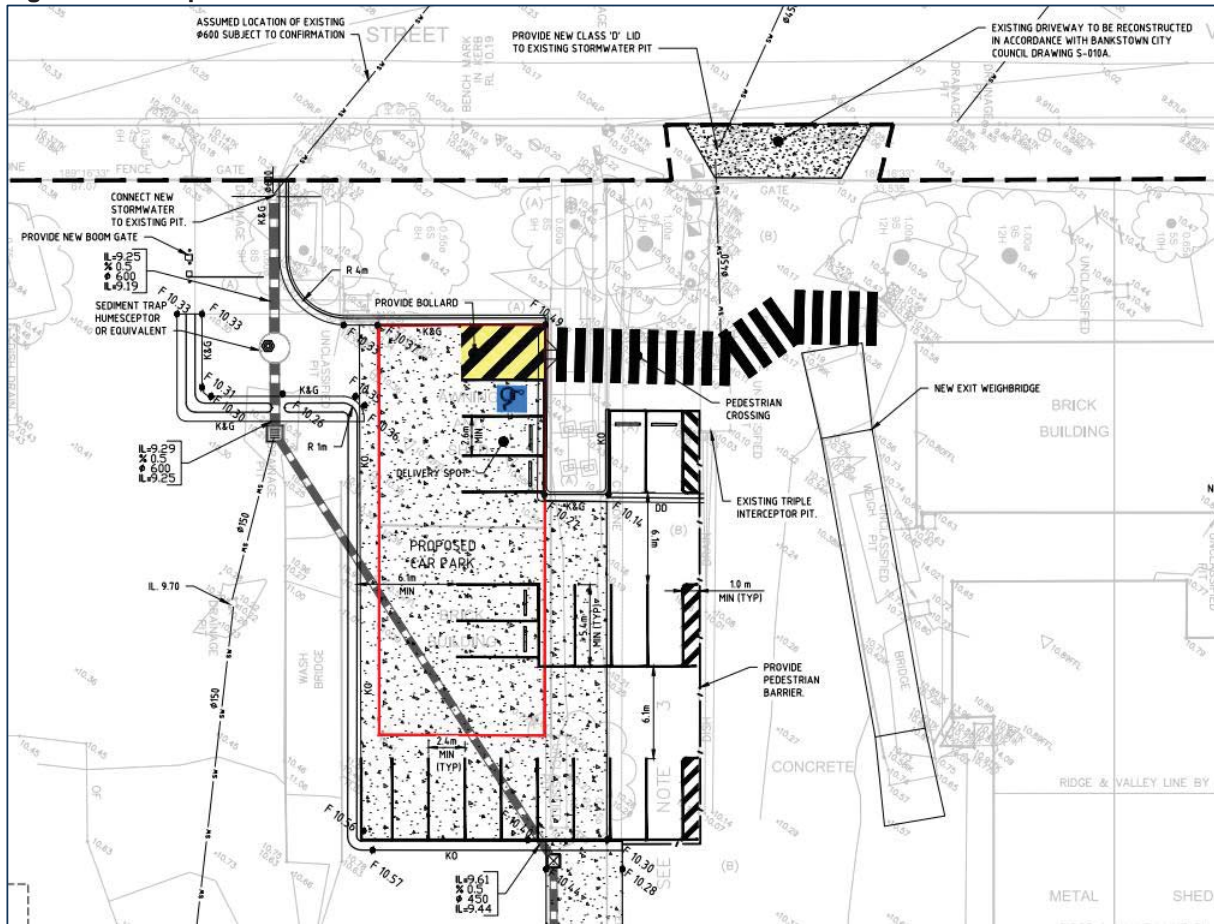
The proposed car park layout is illustrated in **Figure 5-1** and has been designed to be physically separated from the operational area in the southern portion of the site.

Access into and out of the car parking area is proposed to be controlled by a boom gate which will be accessed by a swipe card for staff and intercom to the main building for visitors.

The geometric design layout of the proposed off-street car parking facilities have been designed to generally comply with the requirements set out in the *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009* as follows:

- > 90 degree angle parking bays with a minimum dimension of 5.4m long × 2.4m wide set within a minimum 5.8m wide aisle;
- > Accessible parking spaces with a minimum dimension of 5.4m long × 2.4m wide and an adjoining shared space of the same dimension with a centrally located bollard; and
- > All car parking spaces have been provided with 300mm clearance to vertical obstructions higher than 150mm (where applicable)
- > A 2m×2.5m pedestrian sight triangle is to be provided on the left-hand side of the driveway for vehicles exiting proposed car park.

Figure 5-1 Proposed Car Park



### 5.4 On-Street Parking Impacts

The two north access driveways providing access for heavy vehicles are proposed to be widened to suit the left-turn sweep of a 19m semi-trailer. This will result in the removal of 4 on-street car parking spaces. Notwithstanding, the southernmost access driveway is proposed to remain closed and provides sufficient width to reinstate 1 on-street car parking space.

It is also pertinent to note that cars tend to park further away from access driveways in industrial areas to prevent being scraped by a truck, and it is unlikely cars will park to the edge of the access driveway.

In any event, the proposed development will result in a net loss of 3 on-street car parking spaces.

### 5.5 Sight Distance at Access Driveways

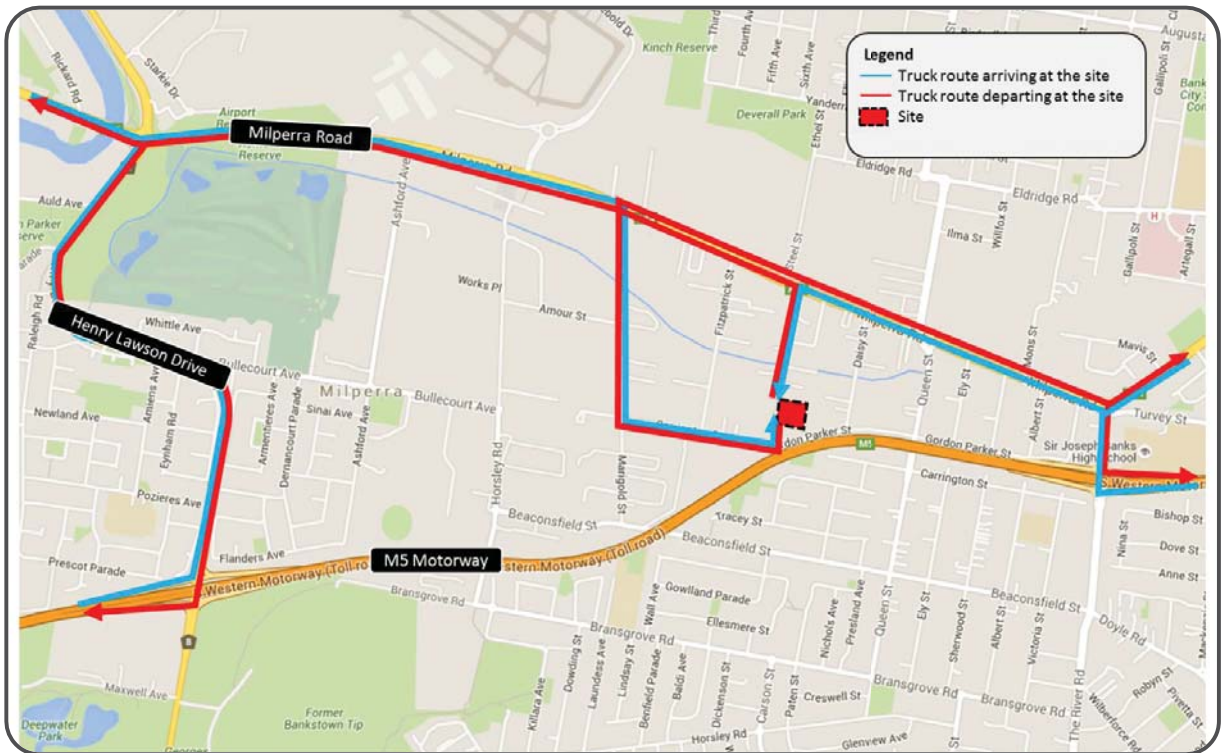
All access driveways providing access into and out of the site are existing, albeit the proposed widening to two of the driveways. Accordingly, it is envisaged that all access driveways will continue to operate as per existing where sight distance has not historically caused concerns.

## 6 Loading and Servicing

### 6.1 Heavy Vehicle Route Map

All heavy vehicles accessing the proposed waste recycling facility must adhere to the heavy vehicle route map shown in **Figure 6-1**.

**Figure 6-1 Heavy Vehicle Route Map**



The site manager will ensure that the route map is prominently displayed on the site and that all contractors and employees are given a copy of the route map to understand their obligations as part of their site induction procedures.

### 6.2 Site Access Arrangements

The proposed waste recycling facility is expected to operate as per existing albeit an increase in the number of trucks to satisfy the increased operational capacity.

The waste facility is currently serviced using a variety of commercial vehicles including single unit trucks as well as articulated trucks up to 19m long. Forklifts are also used on-site to assist with the loading / unloading activities and arrange waste stockpiles.

A swept path assessment has been undertaken to show a 19m long semi-trailer can circulate the site without difficulty, and will be able to enter / exit the site whilst travelling in a forward direction at all times, as illustrated in **Figure 6-2** and **Figure 6-3**.

Figure 6-2 19m Semi-Trailer Left-In / Left-Out Swept Path Assessment

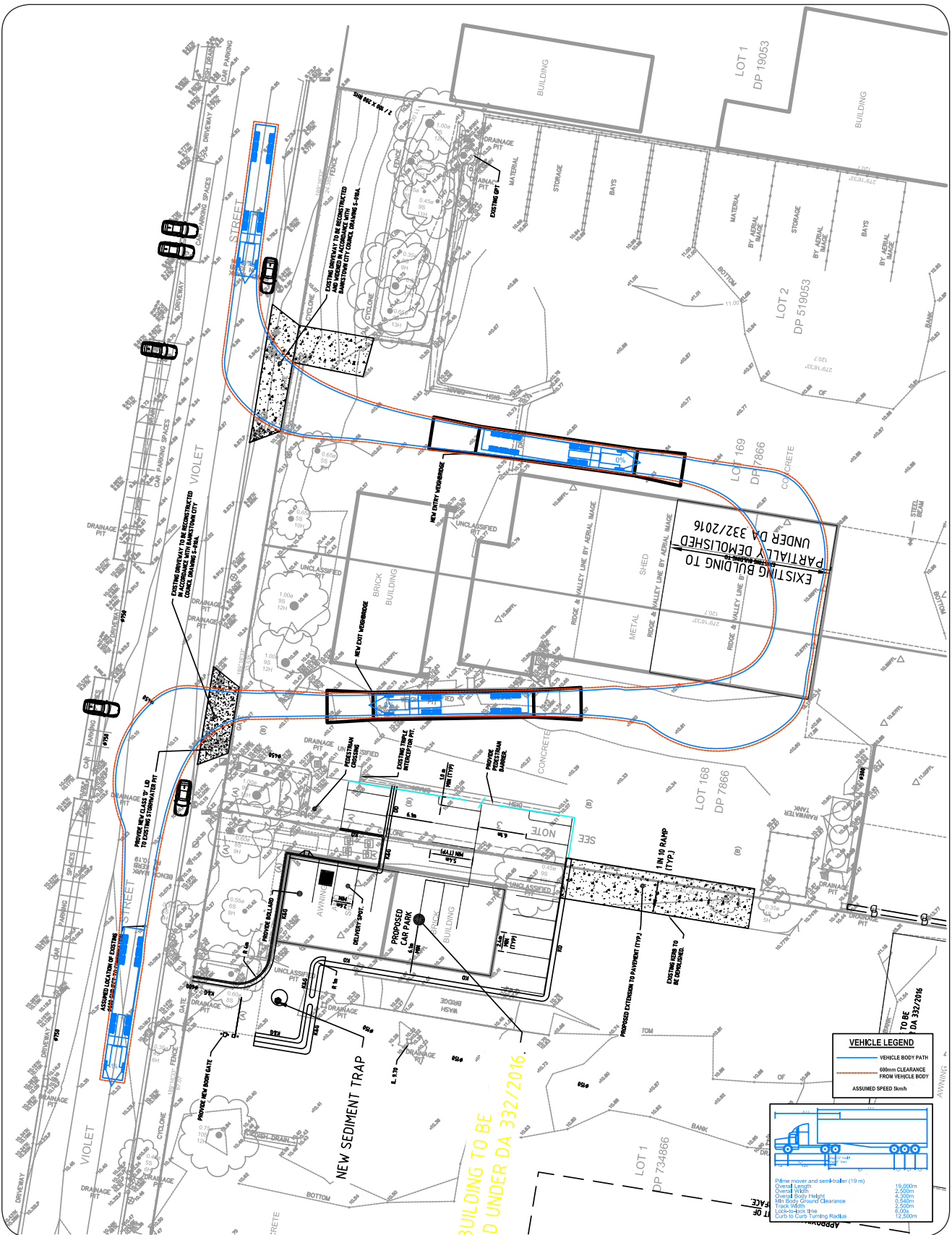
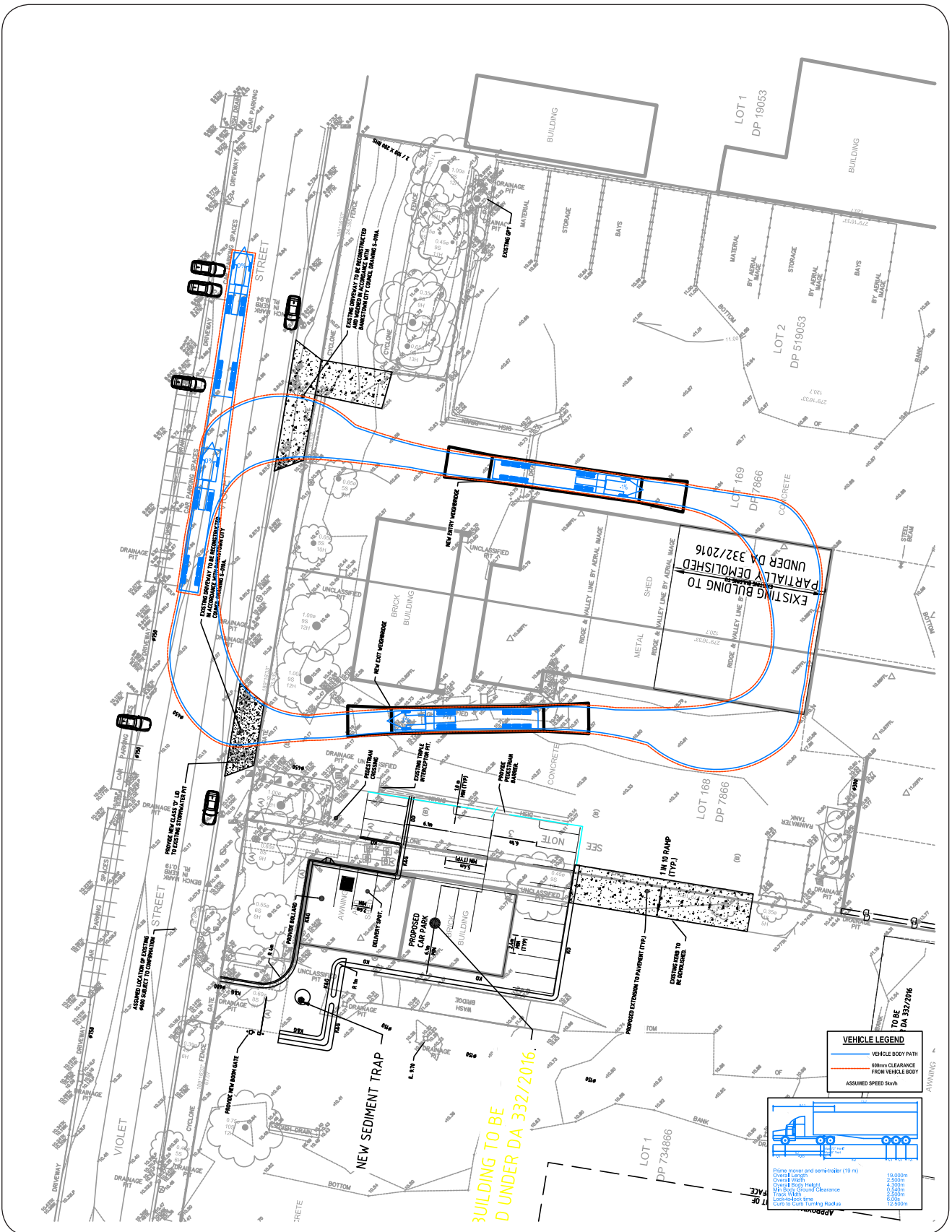


Figure 6-3 19m Semi-Trailer Right-In / Right-Out Swept Path Assessment



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## 7 Pedestrian / Worker Safety

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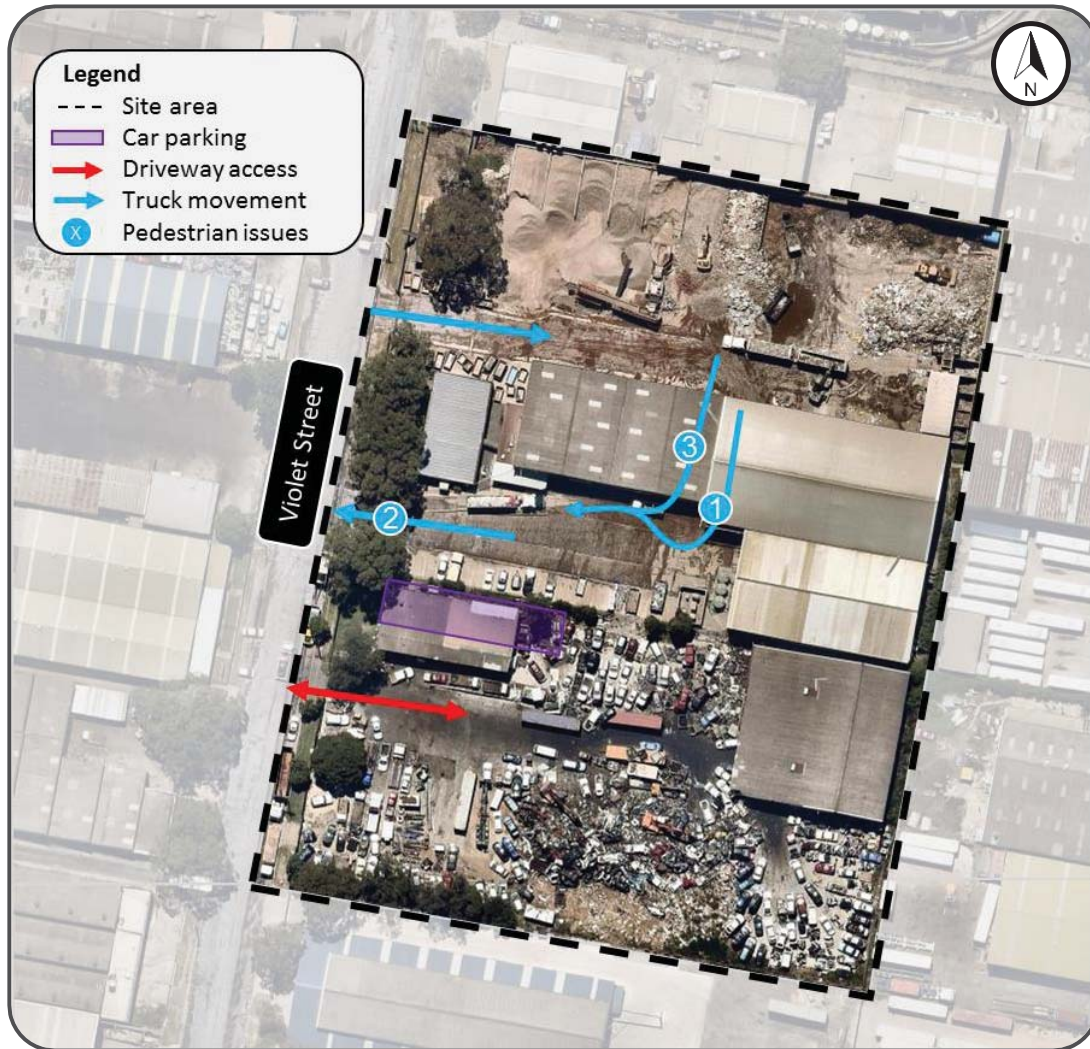
### 7.1 Existing Condition and Observations

A site visit was undertaken as part of this traffic study which identified the following concerns:

1. There is an existing blind corner with trucks turning around the bend as shown in **Figure 7-1**. There is an existing mirror (see **Figure 7-2**) in place at the corner however it is likely that with dust build up that this mirror will not be fully functional;
2. Pedestrian conflicts with trucks as a result of staff moving between the staff car park and the office, particularly during the AM and PM peak periods
3. Vehicles accessing the weighbridge via the concrete slab shown in **Figure 7-1** may conflict with worker movements around the site.
4. General vehicle and worker conflict around the site due lack of pedestrian access. This issues were identified from the site visit as shown in **Figure 7-2** and **Figure 7-3**;
5. General speed control may be required around the site

The key issues have been presented in **Figure 7-1** below. It should be noted that the number within the circle in the figure correlates to the numbers in the above dot points.

Figure 7-1 Pedestrian Safety Issues



Background image: NearMap

Figure 7-2 Worker walking under the awning with trucks dumping rubbish nearby



Figure 7-3 Workers/ visitors from the onsite inspection



## 7.2 Mitigation Measures

Having identified the existing concerns, the following designs have been implemented in the proposed plans to improve the safety of all personnel on site:

- > Physically separate the staff car park from the operational area with painted kerbs as previously discussed in **Section 5.3**; and
- > Provide a pedestrian zebra crossing to guide pedestrians from the staff car park to the main office building.
- > Street sweeper machine and dust mitigation measures to keep pedestrian crossing visible to drivers and pedestrians.
- > Sign posting of zebra crossing to assist warning drivers.

It is further recommended that all on-site personnel, including contractors, should be inducted on site safety prior to commencing work on site, including wearing of high visibility clothing when walking on-site.

## 8 Summary and Conclusions

Cardno has assessed the proposed expansion of the existing Waste Recycling Facility development at 37-55 and 57-67 Violet Street, Revesby. The proposed development was assessed against the SEARs requirements of DoPE, Bankstown Council DCP requirements and AS2890. The assessment outcomes as follows:

- > The proposed development seeks to expand an existing waste recycling facility and increase its operation capacity from 30,000 tonnes per annum to 250,000 tonnes per annum;
- > The existing two crossovers at 37-55 Violet Street are to be retained to provide access to commercial vehicles. The northern crossover is proposed to facilitate entry-only movements and the southern crossover is proposed to facilitate exit-only movements. These crossovers are also proposed to be widened to better accommodate the left-turn sweep of a 19m semi-trailer;
- > The northern crossover at 57-67 Violet Street is proposed to be retained to provide access to the new staff car park and the southern crossover is proposed to remain closed;
- > The proposed development is expected to operate as per existing, albeit with an increase in the number of trucks to satisfy the increased operational capacity;
- > The waste facility is currently serviced using a variety of commercial vehicles including single unit trucks as well as articulated trucks up to 19m in length. Forklifts are also used on-site to assist with the loading / unloading activities and arrange recyclable waste stockpiles;
- > A 19m semi-trailer can circulate the site without difficulty, and will be able to enter / exit the site whilst travelling in a forward direction at all times;
- > It has been estimated that the proposed development could potentially generate up to 18 truck movements plus 25 staff movements during the AM and PM peak hour;
- > Based on the above SIDRA analysis, it is clear that the traffic generated by the proposed development will have negligible impacts on the LoS of the key intersections in the vicinity of the site;
- > The additional traffic generated by the development would be indistinguishable within the variation of traffic volumes experienced daily on the adjoining road network;
- > The proposed waste recycling facility makes provision for a new staff car parking area comprising 20 spaces including 1 accessible parking space, thereby satisfying its operational requirements;
- > The geometric design layout of the proposed off-street car parking facilities have been designed to generally comply with the requirements set out in the *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*;
- > The two north access driveways providing one-way in/ out access for heavy vehicles are proposed to be widened to suit the left-turn swept path of a 19m semi-trailer and will involve a net loss of 3 on-street car parking spaces;
- > All access driveways providing access into and out of the site are existing, albeit the proposed widening to two of the driveways;
- > All heavy vehicles accessing the proposed waste recycling facility must adhere to the heavy vehicle route map. The site manager will ensure that the route map is prominently displayed on the site and that all contractors and employees are given a copy of the route map to understand their obligations as part of their site induction procedures; and
- > Designs have been implemented in the proposed plans to improve the safety of all personnel on site, including physically separating the staff car park and provision of a pedestrian zebra crossing.

**On the above basis, there are no traffic and transport considerations that would preclude the proposed expansion of the existing waste facility from being approved and the overall development is generally in accordance with the DoPE, Council's DCP and AS2890 requirements.**

# APPENDIX A

Survey Data

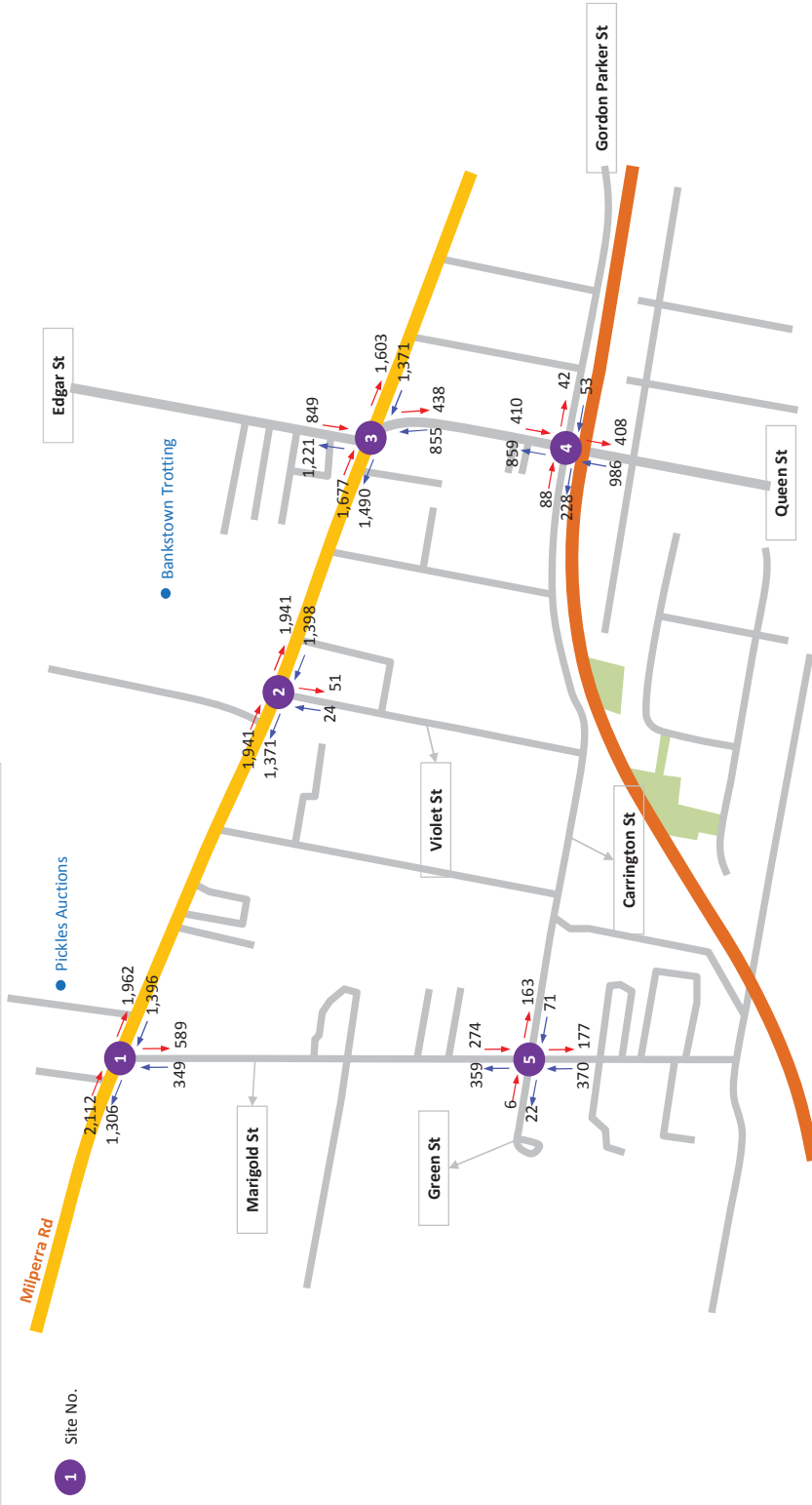


SKYHIGH - THE TRAFFIC SURVEY COMPANY

### Milperra IC - Traffic Flows

Search By Time and Classification

AM / PM	Start Time	End Time	Classification
AM	7:30	8:30	All vehicles





SKYHIGH - THE TRAFFIC SURVEY COMPANY

### Milperra IC - Traffic Flows

Search By Time and Classification

AM / PM

PM

Start Time

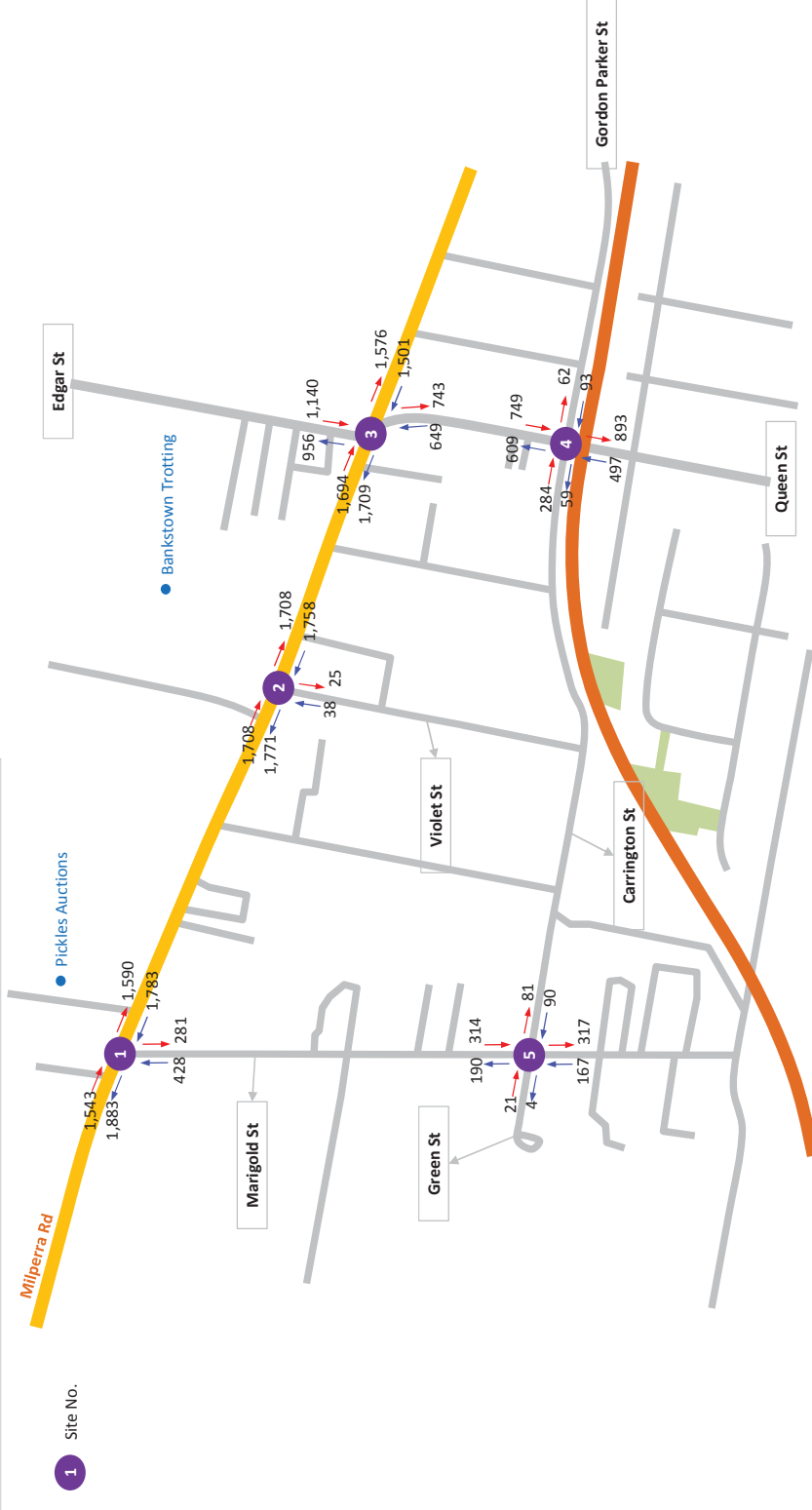
16:30

End Time

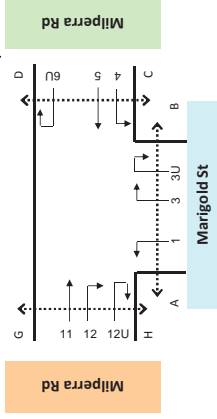
17:30

Classification

All vehicles



Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 1. Milperra Rd / Marigold St  
 Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : 15 mins Data



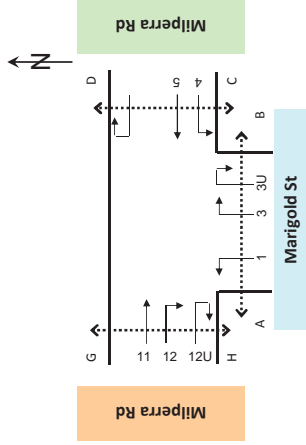
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Classifications	Class 1		Class 2		Class 3	
	Cars	Trucks	Cars	Trucks	Buses	Buses

Approach	Marigold St						Milperra Rd					
	Direction 1 (Left Turn)		Direction 3 (Right Turn)		Direction 3U (U Turn)		Direction 4 (Left Turn)		Direction 5 (Through)		Direction 6U (U Turn)	
Direction	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
7:00 to 7:15	23	4	0	27	8	6	1	15	25	1	2	28
7:15 to 7:30	28	7	0	35	13	3	2	18	43	4	1	48
7:30 to 7:45	29	5	0	34	31	6	1	38	54	6	2	62
7:45 to 8:00	41	5	0	46	28	4	2	34	60	5	1	66
8:00 to 8:15	54	8	0	62	42	5	2	49	60	6	2	68
8:15 to 8:30	40	4	0	44	32	9	1	42	74	6	0	80
8:30 to 8:45	61	16	0	77	53	5	2	60	91	11	2	104
8:45 to 9:00	25	11	0	36	33	6	0	39	95	4	1	100
9:00 to 9:15	33	3	0	36	20	9	2	31	66	5	2	73
9:15 to 9:30	30	6	0	36	18	9	2	29	45	2	2	49
9:30 to 9:45	27	6	0	33	24	7	1	32	45	5	0	50
9:45 to 10:00	31	8	0	39	31	7	2	40	48	6	2	56
<b>AM Totals</b>	<b>422</b>	<b>83</b>	<b>0</b>	<b>505</b>	<b>333</b>	<b>76</b>	<b>18</b>	<b>427</b>	<b>706</b>	<b>61</b>	<b>17</b>	<b>784</b>
16:00 to 16:15	37	6	0	43	75	11	0	86	18	1	1	20
16:15 to 16:30	47	2	0	49	44	3	3	50	24	2	3	29
16:30 to 16:45	55	2	0	57	40	2	2	44	19	4	1	24
16:45 to 17:00	34	3	0	37	31	0	1	32	24	4	2	30
17:00 to 17:15	64	2	0	66	89	3	2	94	21	2	1	24
17:15 to 17:30	46	4	0	50	46	1	1	48	29	2	2	33
17:30 to 17:45	26	1	0	27	40	2	2	44	19	1	1	21
17:45 to 18:00	23	1	0	24	32	0	1	33	18	1	1	20
18:00 to 18:15	21	2	0	23	23	1	1	25	11	2	2	15
18:15 to 18:30	20	1	0	21	21	1	2	24	13	2	1	16
18:30 to 18:45	15	2	0	17	20	0	1	21	16	0	2	18
18:45 to 19:00	14	0	0	14	20	2	2	24	6	0	1	7
<b>PM Totals</b>	<b>402</b>	<b>26</b>	<b>0</b>	<b>428</b>	<b>481</b>	<b>26</b>	<b>18</b>	<b>525</b>	<b>218</b>	<b>21</b>	<b>18</b>	<b>257</b>
<b>Grand Totals</b>	<b>824</b>	<b>109</b>	<b>0</b>	<b>933</b>	<b>814</b>	<b>102</b>	<b>36</b>	<b>952</b>	<b>924</b>	<b>82</b>	<b>35</b>	<b>1,041</b>



**Job No.** : N1787  
**Client** : Cardno  
**Suburb** : Milperra  
**Location** : 1. Milperra Rd / Marigold St  
**Day/Date** : Tuesday, 12th May 2015  
**Weather** : Fine  
**Description** : Classified Intersection Count  
 : Hourly Summary



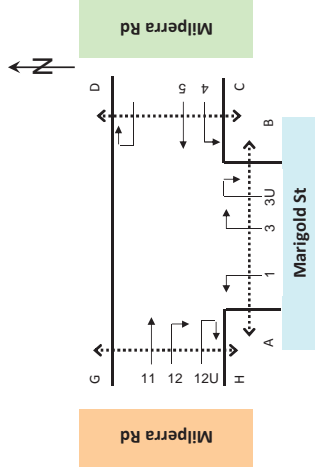
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach		Marigold St						Milperra Rd																	
Direction	Time Period	Direction 1 (Left Turn)			Direction 3 (Right Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6U (U Turn)											
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total								
	7:00 to 8:00	121	21	0	142	80	19	6	105	0	0	0	0	182	16	6	204	1,091	98	3	1,192	0	0	0	0
	7:15 to 8:15	152	25	0	177	114	18	7	139	0	0	0	0	217	21	6	244	1,051	106	3	1,160	0	0	0	0
	7:30 to 8:30	164	22	0	186	133	24	6	163	0	0	0	0	248	23	5	276	1,009	109	2	1,120	0	0	0	0
	7:45 to 8:45	196	33	0	229	155	23	7	185	0	0	0	0	285	28	5	318	1,017	110	0	1,127	0	0	0	0
	8:00 to 9:00	180	39	0	219	160	25	5	190	0	0	0	0	320	27	5	352	994	101	1	1,096	0	0	0	0
	8:15 to 9:15	159	34	0	193	138	29	5	172	0	0	0	0	326	26	5	357	983	116	1	1,100	0	0	0	0
	8:30 to 9:30	149	36	0	185	124	29	6	159	0	0	0	0	297	22	7	326	971	128	1	1,100	0	0	0	0
	8:45 to 9:45	115	26	0	141	95	31	5	131	0	0	0	0	251	16	5	272	961	147	2	1,110	0	0	0	0
	9:00 to 10:00	121	23	0	144	93	32	7	132	0	0	0	0	204	18	6	228	937	165	1	1,103	0	0	0	0
	<b>AM Totals</b>	<b>422</b>	<b>83</b>	<b>0</b>	<b>505</b>	<b>333</b>	<b>76</b>	<b>18</b>	<b>427</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>706</b>	<b>61</b>	<b>17</b>	<b>784</b>	<b>3,022</b>	<b>364</b>	<b>5</b>	<b>3,391</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	16:00 to 17:00	173	13	0	186	190	16	6	212	0	0	0	0	85	11	7	103	1,524	94	3	1,621	0	0	0	0
	16:15 to 17:15	200	9	0	209	204	8	8	220	0	0	0	0	88	12	7	107	1,574	95	2	1,671	0	0	0	0
	16:30 to 17:30	199	11	0	210	206	6	6	218	0	0	0	0	93	12	6	111	1,579	90	3	1,672	0	0	0	0
	16:45 to 17:45	170	10	0	180	206	6	6	218	0	0	0	0	93	9	6	108	1,604	95	3	1,702	0	0	0	0
	17:00 to 18:00	159	8	0	167	207	6	6	219	0	0	0	0	87	6	5	98	1,635	85	1	1,721	0	0	0	0
	17:15 to 18:15	116	8	0	124	141	4	5	150	0	0	0	0	77	6	6	89	1,580	67	1	1,648	0	0	0	0
	17:30 to 18:30	90	5	0	95	116	4	6	126	0	0	0	0	61	6	5	72	1,527	59	0	1,586	0	0	0	0
	17:45 to 18:45	79	6	0	85	96	2	5	103	0	0	0	0	58	5	6	69	1,438	55	0	1,493	0	0	0	0
	18:00 to 19:00	70	5	0	75	84	4	6	94	0	0	0	0	46	4	6	56	1,314	46	1	1,361	0	0	0	0
	<b>PM Totals</b>	<b>402</b>	<b>26</b>	<b>0</b>	<b>428</b>	<b>481</b>	<b>26</b>	<b>18</b>	<b>525</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>218</b>	<b>21</b>	<b>18</b>	<b>257</b>	<b>4,473</b>	<b>225</b>	<b>5</b>	<b>4,703</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Approach	Milperra Rd												Crossing Pedestrians					
	Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)				A	B	C	D	G	H
7:00 to 8:00	Cars	1,576	534	3	3,813	244	28	278	0	0	0	0	0	0	0	0	0	2
7:15 to 8:15	Cars	1,623	116	2	1,741	233	44	279	0	0	0	0	0	0	0	0	0	1
7:30 to 8:30	Cars	1,676	121	2	1,799	266	45	313	0	0	0	0	0	0	0	0	0	1
7:45 to 8:45	Cars	1,516	140	3	1,659	280	57	339	0	0	0	0	0	0	0	0	0	1
8:00 to 9:00	Cars	1,442	145	3	1,590	297	56	354	0	0	0	0	0	0	0	0	0	2
8:15 to 9:15	Cars	1,366	158	3	1,527	292	50	342	0	0	0	0	0	0	0	0	0	2
8:30 to 9:30	Cars	1,177	165	3	1,345	254	51	305	0	0	0	0	0	0	0	0	0	2
8:45 to 9:45	Cars	1,179	173	2	1,354	230	50	271	0	0	0	0	0	0	0	0	0	1
9:00 to 10:00	Cars	1,115	185	0	1,300	184	51	236	0	0	0	0	0	0	0	0	0	0
<b>AM Totals</b>		<b>4,233</b>	<b>464</b>	<b>6</b>	<b>4,703</b>	<b>725</b>	<b>135</b>	<b>863</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
16:00 to 17:00	Cars	1,236	51	6	1,293	152	23	175	0	0	0	0	0	0	0	0	0	0
16:15 to 17:15	Cars	1,271	48	5	1,324	159	21	181	0	0	0	0	1	0	0	0	0	1
16:30 to 17:30	Cars	1,320	48	4	1,372	153	16	170	1	0	0	1	1	0	0	0	0	1
16:45 to 17:45	Cars	1,307	43	2	1,352	156	12	169	2	0	0	2	1	0	0	0	0	1
17:00 to 18:00	Cars	1,303	39	2	1,344	151	8	160	2	0	0	2	1	0	0	0	0	1
17:15 to 18:15	Cars	1,281	40	0	1,321	138	8	146	3	0	0	3	0	0	0	0	0	0
17:30 to 18:30	Cars	1,228	38	0	1,266	112	8	120	2	0	0	2	0	0	0	0	0	0
17:45 to 18:45	Cars	1,157	41	0	1,198	93	6	99	1	0	0	1	0	0	0	0	0	0
18:00 to 19:00	Cars	1,008	41	0	1,049	92	8	100	1	0	0	1	0	0	0	0	0	0
<b>PM Totals</b>		<b>3,547</b>	<b>131</b>	<b>8</b>	<b>3,686</b>	<b>395</b>	<b>39</b>	<b>495</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 1. Milperra Rd / Marigold St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary



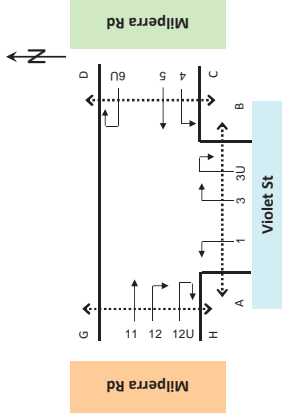
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Marigold St				Milperra Rd				Grand Total
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
<b>Time Period</b>									
7:30 to 8:30	297	46	6	349	1,257	132	7	1,396	3,857
16:30 to 17:30	405	17	6	428	1,672	102	9	1,783	3,754

Approach	Marigold St				Milperra Rd				Grand Total
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
<b>Time Period</b>									
7:00 to 8:00	201	40	6	247	1,273	114	9	1,396	3,729
7:15 to 8:15	266	43	7	316	1,268	127	9	1,404	3,740
7:30 to 8:30	297	46	6	349	1,257	132	7	1,396	3,857
7:45 to 8:45	351	56	7	414	1,302	138	5	1,445	3,857
8:00 to 9:00	340	64	5	409	1,314	128	6	1,448	3,801
8:15 to 9:15	297	63	5	365	1,309	142	6	1,457	3,691
8:30 to 9:30	273	65	6	344	1,268	150	8	1,426	3,420
8:45 to 9:45	210	57	5	272	1,212	163	7	1,382	3,279
9:00 to 10:00	214	55	7	276	1,141	183	7	1,331	3,143
<b>AM Totals</b>	<b>755</b>	<b>159</b>	<b>18</b>	<b>932</b>	<b>3,728</b>	<b>425</b>	<b>22</b>	<b>4,175</b>	<b>10,673</b>
16:00 to 17:00	363	29	6	398	1,609	105	10	1,724	3,590
16:15 to 17:15	404	17	8	429	1,662	107	9	1,778	3,712
16:30 to 17:30	405	17	6	428	1,672	102	9	1,783	3,754
16:45 to 17:45	376	16	6	398	1,697	104	9	1,810	3,731
17:00 to 18:00	366	14	6	386	1,722	91	6	1,819	3,711
17:15 to 18:15	257	12	5	274	1,657	73	7	1,737	3,481
17:30 to 18:30	206	9	6	221	1,588	65	5	1,658	3,267
17:45 to 18:45	175	8	5	188	1,496	60	6	1,562	3,048
18:00 to 19:00	154	9	6	169	1,360	50	7	1,417	2,736
<b>PM Totals</b>	<b>883</b>	<b>52</b>	<b>18</b>	<b>953</b>	<b>4,691</b>	<b>246</b>	<b>23</b>	<b>4,960</b>	<b>10,037</b>



**Job No.** : N1787  
**Client** : Cardno  
**Suburb** : Milperra  
**Location** : 2. Milperra Rd / Violet St  
**Day/Date** : Tuesday, 12th May 2015  
**Weather** : Fine  
**Description** : Classified Intersection Count  
 : 15 mins Data



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Class 1		Class 2		Class 3	
Cars		Trucks		Buses	

Approach	Violet St						Milperra Rd										
	Direction 1 (Left Turn)		Direction 3 (Right Turn)		Direction 3U (U Turn)		Direction 4 (Left Turn)		Direction 5 (Through)		Direction 6U (U Turn)						
Direction	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
<b>Time Period</b>																	
7:00 to 7:15	3	2	0	5	0	0	0	0	3	292	24	2	318	0	0	0	0
7:15 to 7:30	1	2	0	3	0	0	0	0	9	3	0	12	390	0	0	0	0
7:30 to 7:45	7	0	0	7	0	0	0	0	10	3	0	13	312	0	0	0	0
7:45 to 8:00	1	2	0	3	0	0	0	0	11	4	0	15	347	0	0	0	0
8:00 to 8:15	6	1	0	7	0	0	0	0	11	2	0	13	371	0	0	0	0
8:15 to 8:30	4	2	0	6	0	0	0	1	7	2	0	9	318	0	0	0	0
8:30 to 8:45	5	3	0	8	0	0	0	0	9	3	0	12	308	0	0	0	0
8:45 to 9:00	4	1	0	5	0	0	0	0	9	1	0	10	303	0	0	0	0
9:00 to 9:15	2	2	0	4	0	0	0	0	5	2	0	7	312	0	0	0	0
9:15 to 9:30	7	0	0	7	0	0	0	0	9	2	0	11	367	0	0	0	0
9:30 to 9:45	3	2	0	5	0	0	0	0	7	2	0	9	288	0	0	0	0
9:45 to 10:00	4	2	0	6	0	0	0	0	9	5	0	14	312	0	0	0	0
<b>AM Totals</b>	<b>47</b>	<b>19</b>	<b>0</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>99</b>	<b>29</b>	<b>0</b>	<b>128</b>	<b>3,561</b>	<b>408</b>	<b>22</b>	<b>3,991</b>	<b>0</b>
16:00 to 16:15	8	0	0	8	0	0	0	0	10	1	0	11	430	26	1	457	0
16:15 to 16:30	12	0	0	12	0	0	0	0	2	1	0	3	360	33	3	396	0
16:30 to 16:45	9	0	0	9	0	0	0	0	3	1	0	4	405	21	1	427	0
16:45 to 17:00	6	0	0	6	0	0	0	0	4	3	0	7	382	23	3	408	0
17:00 to 17:15	19	0	0	19	0	0	0	0	5	2	0	7	449	29	1	479	0
17:15 to 17:30	4	0	0	4	0	0	0	0	7	0	0	7	392	24	3	419	0
17:30 to 17:45	6	0	0	6	0	0	0	0	2	0	0	2	379	24	0	403	0
17:45 to 18:00	3	0	0	3	0	0	0	0	2	0	0	2	430	13	2	445	0
18:00 to 18:15	3	0	0	3	0	0	0	0	4	1	0	5	360	12	2	374	0
18:15 to 18:30	2	0	0	2	0	0	0	0	6	0	0	6	340	9	1	350	0
18:30 to 18:45	0	0	0	0	0	0	0	0	2	1	0	3	302	17	2	321	0
18:45 to 19:00	0	1	0	1	0	0	0	0	1	0	0	1	316	10	2	328	0
<b>PM Totals</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>10</b>	<b>0</b>	<b>58</b>	<b>4,545</b>	<b>241</b>	<b>21</b>	<b>4,807</b>	<b>0</b>

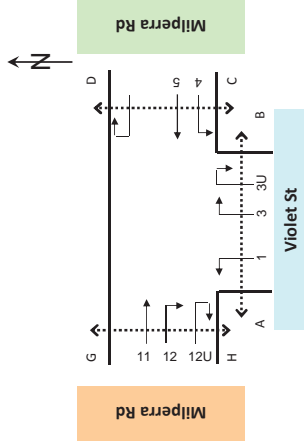
Approach		Milperra Rd										Crossing Pedestrians							
Direction	Time Period	Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)				A	B	C	D	G	H	Total	
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks								Buses
	7:00 to 7:15	427	47	3	477	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 to 7:30	394	32	1	427	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 to 7:45	465	28	2	495	0	0	0	0	0	0	0	0	0	0	0	1	1	
	7:45 to 8:00	441	36	3	480	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 to 8:15	422	38	2	462	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 to 8:30	461	42	1	504	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 to 8:45	276	47	3	326	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 to 9:00	398	42	2	442	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 to 9:15	313	46	2	361	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 to 9:30	384	57	2	443	0	0	0	0	0	0	0	0	0	1	0	1	2	
	9:30 to 9:45	333	60	0	393	0	0	0	0	0	0	0	0	2	0	0	2	5	
	9:45 to 10:00	313	57	3	373	0	0	0	0	0	0	0	1	0	0	0	1	1	
	<b>AM Totals</b>	<b>4,527</b>	<b>532</b>	<b>24</b>	<b>5,083</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>9</b>
	16:00 to 16:15	419	23	3	445	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:15 to 16:30	368	24	4	396	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:30 to 16:45	402	25	4	431	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:45 to 17:00	380	12	1	393	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:00 to 17:15	463	12	2	477	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:15 to 17:30	395	10	2	407	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:30 to 17:45	353	11	1	365	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:45 to 18:00	355	8	1	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18:00 to 18:15	380	13	1	394	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18:15 to 18:30	395	11	2	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18:30 to 18:45	270	11	1	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18:45 to 19:00	224	10	0	234	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>PM Totals</b>	<b>4,334</b>	<b>170</b>	<b>22</b>	<b>4,526</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 2. Milperra Rd / Violet St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Hourly Summary



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

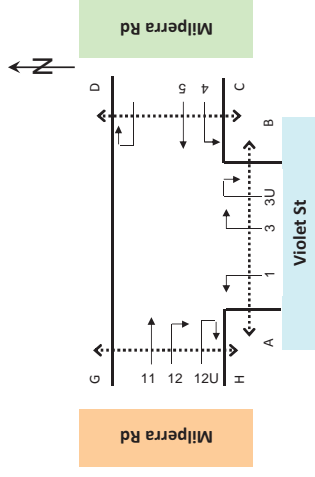


Approach		Violet St						Milperra Rd										
Direction	Time Period	Direction 1 (Left Turn)			Direction 3 (Right Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6U (U Turn)				
		Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
	7:00 to 8:00	12	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 to 8:15	15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 to 8:30	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 to 8:45	16	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 to 9:00	19	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 to 9:15	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 to 9:30	18	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 to 9:45	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 to 10:00	16	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>AM Totals</b>	<b>47</b>	<b>19</b>	<b>0</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>128</b>	<b>408</b>	<b>22</b>	<b>3,561</b>	<b>408</b>	<b>22</b>
	16:00 to 17:00	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:15 to 17:15	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:30 to 17:30	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	16:45 to 17:45	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:00 to 18:00	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:15 to 18:15	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:30 to 18:30	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	17:45 to 18:45	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	18:00 to 19:00	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>PM Totals</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>241</b>	<b>21</b>	<b>4,545</b>	<b>241</b>	<b>21</b>

Approach	Milperra Rd												Crossing Pedestrians							
	Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)				A	B	C	D	G	H	Total	
Direction	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total								
Time Period																				
7:00 to 8:00	1,727	513	9	1,879	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 to 8:15	1,722	134	8	1,864	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 to 8:30	1,788	144	8	1,941	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 to 8:45	1,600	163	9	1,772	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 to 9:00	1,557	169	8	1,734	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 to 9:15	1,448	177	8	1,633	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 to 9:30	1,271	192	9	1,472	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 to 9:45	1,328	205	0	1,539	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 to 10:00	1,243	220	7	1,470	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>AM Totals</b>	<b>4,327</b>	<b>532</b>	<b>24</b>	<b>5,083</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>
16:00 to 17:00	1,589	84	12	1,685	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 to 17:15	1,613	73	11	1,697	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 to 17:30	1,640	59	9	1,708	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 to 17:45	1,591	45	0	1,636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 to 18:00	1,566	41	6	1,613	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 to 18:15	1,483	42	5	1,530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 to 18:30	1,393	43	5	1,441	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 to 18:45	1,310	43	5	1,358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00 to 19:00	1,179	45	4	1,228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>4,334</b>	<b>170</b>	<b>22</b>	<b>4,526</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 2. Milperra Rd / Violet St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary

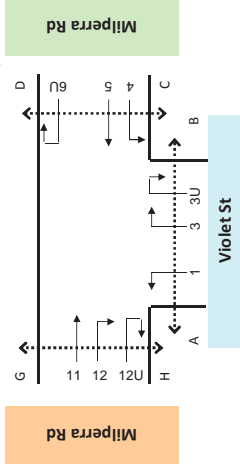


**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Violet St				Milperra Rd				Milperra Rd				Grand Total		
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Buses	Total
<b>Time Period</b>															
7:30 to 8:30	19	5	0	24	1,247	142	9	1,398	1,789	144	8	1,941	1,640	59	1,708
16:30 to 17:30	38	0	0	38	1,647	103	8	1,758	1,640	59	9	1,708	1,640	59	1,708

Approach	Violet St				Milperra Rd				Milperra Rd				Grand Total		
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Buses	Total
<b>Time Period</b>															
7:00 to 8:00	12	6	0	18	1,279	121	10	1,410	1,727	143	9	1,879	1,228	205	6
7:15 to 8:15	15	5	0	20	1,327	136	10	1,473	1,722	134	8	1,864	1,243	220	7
7:30 to 8:30	19	5	0	24	1,247	142	9	1,398	1,789	144	8	1,941	1,243	220	7
7:45 to 8:45	17	8	0	25	1,245	143	5	1,393	1,600	163	9	1,772	1,527	24	5,083
8:00 to 9:00	20	7	0	27	1,210	128	6	1,344	1,557	169	8	1,734	1,589	84	12
8:15 to 9:15	16	8	0	24	1,184	138	6	1,328	1,448	177	8	1,633	1,613	73	11
8:30 to 9:30	18	6	0	24	1,172	148	7	1,327	1,271	192	9	1,472	1,640	59	9
8:45 to 9:45	16	5	0	21	1,141	156	7	1,304	1,228	205	6	1,539	1,591	45	6
9:00 to 10:00	16	6	0	22	1,171	188	6	1,365	1,243	220	7	1,470	1,566	41	6
<b>AM Totals</b>	<b>48</b>	<b>19</b>	<b>0</b>	<b>67</b>	<b>3,660</b>	<b>437</b>	<b>22</b>	<b>4,119</b>	<b>4,527</b>	<b>532</b>	<b>24</b>	<b>5,083</b>	<b>4,527</b>	<b>532</b>	<b>24</b>
16:00 to 17:00	35	0	0	35	1,596	109	8	1,713	1,589	84	12	1,685	1,589	84	12
16:15 to 17:15	46	0	0	46	1,610	113	8	1,731	1,613	73	11	1,697	1,613	73	11
16:30 to 17:30	38	0	0	38	1,647	103	8	1,758	1,640	59	9	1,708	1,640	59	9
16:45 to 17:45	35	0	0	35	1,620	105	7	1,732	1,591	45	6	1,642	1,591	45	6
17:00 to 18:00	32	0	0	32	1,666	92	6	1,764	1,566	41	6	1,613	1,566	41	6
17:15 to 18:15	16	0	0	16	1,576	74	7	1,657	1,483	42	5	1,530	1,483	42	5
17:30 to 18:30	14	0	0	14	1,523	59	5	1,587	1,393	43	5	1,441	1,393	43	5
17:45 to 18:45	8	0	0	8	1,446	53	7	1,506	1,310	43	5	1,358	1,310	43	5
18:00 to 19:00	5	1	0	6	1,331	50	7	1,388	1,179	45	4	1,228	1,179	45	4
<b>PM Totals</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>73</b>	<b>4,593</b>	<b>251</b>	<b>21</b>	<b>4,865</b>	<b>4,334</b>	<b>170</b>	<b>22</b>	<b>4,526</b>	<b>4,334</b>	<b>170</b>	<b>22</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 2. Milperra Rd / Violet St  
 Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



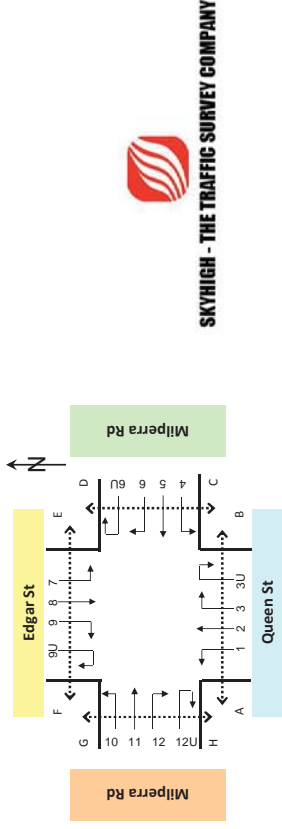
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Direction	Pedestrians							
	Time Period	A	B	C	D	G	H	
	7:00 to 7:15	0	0	0	0	0	0	
	7:15 to 7:30	0	0	0	0	0	0	
	7:30 to 7:45	0	0	0	0	0	1	
	7:45 to 8:00	0	0	0	0	0	0	
	8:00 to 8:15	0	0	0	0	0	0	
	8:15 to 8:30	0	0	0	0	0	0	
	8:30 to 8:45	0	0	0	0	0	0	
	8:45 to 9:00	0	0	0	0	0	0	
	9:00 to 9:15	0	0	0	0	0	0	
	9:15 to 9:30	0	1	0	0	0	1	
	9:30 to 9:45	0	2	0	0	1	2	
	9:45 to 10:00	1	0	0	0	0	0	
	<b>AM Totals</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	
	16:00 to 16:15	1	0	0	0	1	0	
	16:15 to 16:30	0	0	0	0	0	0	
	16:30 to 16:45	0	0	0	0	0	0	
	16:45 to 17:00	0	0	0	0	0	0	
	17:00 to 17:15	0	0	0	0	0	0	
	17:15 to 17:30	1	0	0	0	0	0	
	17:30 to 17:45	0	0	0	0	0	0	
	17:45 to 18:00	0	0	0	0	0	0	
	18:00 to 18:15	0	0	0	0	0	0	
	18:15 to 18:30	0	0	0	0	0	0	
	18:30 to 18:45	0	0	0	0	0	0	
	18:45 to 19:00	0	0	0	0	0	0	
	<b>PM Totals</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 3. Milperra Rd / Queen St / Edgar St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : 15 mins Data

Classifications	Class 1		Class 2		Class 3	
	Cars	Trucks	Cars	Buses	Cars	Buses



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Queen St												Milperra Rd																							
	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)							
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total				
<b>Time Period</b>																																				
7:00 to 7:15	24	3	0	27	106	6	2	114	28	5	1	34	0	0	0	0	13	3	0	16	192	23	2	217	61	8	1	70	0	0	0	0	0	0	0	0
7:15 to 7:30	17	0	0	17	130	6	0	136	23	4	1	28	0	0	0	0	14	3	0	17	206	23	3	232	50	5	0	55	0	0	0	0	0	0	0	0
7:30 to 7:45	14	0	0	14	160	3	2	165	55	2	0	57	0	0	0	0	21	2	0	23	208	31	2	241	52	5	0	57	0	0	0	0	0	0	0	0
7:45 to 8:00	11	2	0	13	166	1	1	168	46	5	0	51	0	0	0	0	17	3	0	20	234	22	2	258	57	5	0	62	0	0	0	0	0	0	0	0
8:00 to 8:15	11	1	0	12	126	3	2	131	37	9	1	47	0	0	0	0	15	4	0	19	277	34	2	313	61	8	3	72	0	0	0	0	0	0	0	0
8:15 to 8:30	16	0	0	16	122	5	1	128	46	7	0	53	0	0	0	0	20	4	0	24	199	29	1	229	47	5	1	53	0	0	0	0	0	0	0	0
8:30 to 8:45	18	1	0	19	140	6	1	147	20	9	1	30	0	0	0	0	35	2	0	37	323	21	4	257	45	10	0	55	1	0	0	1	0	0	0	0
8:45 to 9:00	16	3	0	19	134	6	1	141	37	7	0	44	0	0	0	0	35	0	0	35	254	34	2	290	48	6	0	54	0	0	0	0	0	0	0	0
9:00 to 9:15	26	5	0	31	148	1	2	151	45	6	0	51	0	0	0	0	20	3	0	23	190	38	1	229	58	10	0	68	0	0	0	0	0	0	0	0
9:15 to 9:30	20	0	0	20	111	3	1	115	26	11	0	37	0	0	0	0	27	6	0	33	200	37	2	239	68	14	0	82	0	0	0	0	0	0	0	0
9:30 to 9:45	18	0	0	18	107	7	1	115	24	16	0	40	0	0	0	0	20	4	1	25	153	28	1	182	36	5	0	41	0	0	0	0	0	0	0	0
9:45 to 10:00	18	1	0	19	66	2	0	68	40	17	1	58	0	0	0	0	25	4	1	30	206	29	2	237	59	2	0	61	0	0	0	0	0	0	0	0
<b>AM Totals</b>	209	16	0	225	1,516	49	14	1,579	427	98	5	530	0	0	0	0	262	38	2	302	2,551	349	24	2,924	642	83	5	730	1	0	0	1	0	0	0	0
16:00 to 16:15	15	3	0	18	91	3	0	94	38	0	0	38	0	0	0	0	36	4	0	40	288	26	1	315	39	8	0	47	0	0	0	0	0	0	0	0
16:15 to 16:30	14	0	0	14	103	2	1	106	34	6	0	40	0	0	0	0	36	3	0	39	225	13	2	240	52	4	0	56	0	0	0	0	0	0	0	0
16:30 to 16:45	20	0	0	20	60	4	0	64	48	2	0	50	0	0	0	0	30	1	0	31	260	14	2	276	71	2	0	73	0	0	0	0	0	0	0	0
16:45 to 17:00	20	2	0	22	95	3	1	99	45	3	0	48	0	0	0	0	35	5	0	40	275	17	1	293	44	7	1	52	0	0	0	0	0	0	0	0
17:00 to 17:15	15	1	0	16	88	2	0	90	40	1	0	41	0	0	0	0	36	1	0	37	250	18	2	270	59	5	0	64	0	0	0	0	0	0	0	0
17:15 to 17:30	38	0	0	38	99	2	1	102	58	1	0	59	0	0	0	0	44	1	0	45	247	15	3	265	53	2	0	55	0	0	0	0	0	0	0	0
17:30 to 17:45	21	0	0	21	105	0	0	105	45	1	0	46	0	0	0	0	28	1	0	29	218	21	0	239	55	4	0	59	0	0	0	0	0	0	0	0
17:45 to 18:00	23	0	0	23	91	1	0	92	34	1	0	35	0	0	0	0	38	0	0	38	202	12	1	215	45	1	0	46	0	0	0	0	0	0	0	0
18:00 to 18:15	29	0	0	29	77	0	1	78	35	0	0	35	0	0	0	0	29	1	1	31	190	10	1	201	55	2	0	57	0	0	0	0	0	0	0	0
18:15 to 18:30	30	0	0	30	70	0	1	71	25	2	0	27	1	0	0	1	40	0	0	40	208	15	1	224	78	1	1	80	0	0	0	0	0	0	0	0
18:30 to 18:45	20	0	0	20	72	0	0	72	28	2	0	30	0	0	0	0	43	0	0	43	168	12	3	183	59	1	0	60	0	0	0	0	0	0	0	0
18:45 to 19:00	18	0	0	18	69	0	0	69	35	0	0	35	0	0	0	0	39	0	1	40	204	3	2	209	53	1	0	54	0	0	0	0	0	0	0	0
<b>PM Totals</b>	263	6	0	269	1,020	17	5	1,042	465	19	0	484	1	0	0	1	434	17	2	453	2,735	176	19	2,930	663	38	2	703	0	0	0	0	0	0	0	0

Approach	Edgar St												Milperra Rd												Crossing Pedestrians												
	Direction 7 (Left Turn)			Direction 8 (Through)			Direction 9 (Right Turn)			Direction 10 (Left Turn)			Direction 11 (Through)			Direction 12 (Right Turn)			Direction 12U (U Turn)			A	B	C	D	E	F	G	H	Total							
	Cars	Trucks	Buses	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total						
7:00 to 7:15	32	8	1	41	43	1	84	67	4	0	71	0	0	0	338	32	1	316	20	1	0	21	0	0	0	0	0	0	0	0	0	0	0				
7:15 to 7:30	35	13	0	48	32	2	101	100	1	0	101	94	10	0	274	45	0	319	19	5	0	24	0	0	0	0	0	0	0	0	0	0	0				
7:30 to 7:45	42	5	1	48	52	3	105	96	9	0	105	87	3	0	264	27	1	292	16	2	0	18	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 to 8:00	36	9	0	45	53	4	102	92	7	0	99	88	9	0	259	34	0	294	22	3	0	25	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 to 8:15	33	6	1	40	67	4	93	86	7	0	93	66	9	1	218	37	3	268	13	1	0	14	0	1	0	0	0	0	0	0	0	0	0	0	0		
8:15 to 8:30	52	4	0	56	78	2	134	86	9	0	95	112	8	2	318	33	1	352	26	1	0	27	1	0	0	1	0	1	0	0	0	0	0	0	0		
8:30 to 8:45	45	1	1	47	89	2	137	100	5	1	106	70	7	0	232	38	1	271	22	1	0	23	3	0	0	3	0	0	0	0	0	0	0	0	0	0	
8:45 to 9:00	44	5	0	49	67	1	116	73	8	0	81	89	6	0	260	41	3	304	34	2	0	36	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 to 9:15	39	8	0	47	46	5	100	73	7	0	80	81	11	0	191	35	0	226	21	3	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 to 9:30	34	5	0	39	53	1	93	61	7	0	68	62	14	0	234	35	1	270	28	5	0	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 to 9:45	57	7	0	64	48	0	112	59	3	0	62	66	14	0	300	47	1	388	24	0	0	24	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
9:45 to 10:00	47	7	0	54	49	2	103	63	6	0	69	58	9	0	323	39	0	421	19	5	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>AM Totals</b>	<b>492</b>	<b>78</b>	<b>4</b>	<b>574</b>	<b>677</b>	<b>27</b>	<b>1,271</b>	<b>956</b>	<b>73</b>	<b>1</b>	<b>1,030</b>	<b>950</b>	<b>106</b>	<b>4</b>	<b>2,915</b>	<b>443</b>	<b>13</b>	<b>3,371</b>	<b>264</b>	<b>29</b>	<b>0</b>	<b>293</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>15</b>		
16:00 to 16:15	70	6	0	85	75	0	160	110	6	0	116	112	2	0	368	20	3	491	33	1	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 to 16:30	47	4	0	51	103	0	154	100	4	0	104	81	1	1	278	18	3	299	28	2	0	30	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
16:30 to 16:45	55	8	1	64	99	0	172	121	5	0	126	64	5	0	350	15	1	466	40	2	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 to 17:00	43	2	0	45	56	1	101	115	6	0	121	95	4	0	272	17	2	291	38	3	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 to 17:15	49	3	0	52	113	1	165	114	5	1	120	100	3	0	310	10	2	322	50	1	0	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 to 17:30	54	3	0	57	101	1	161	134	7	1	142	84	2	0	371	7	3	481	42	1	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 to 17:45	53	1	0	54	114	1	169	114	1	0	115	88	4	0	318	14	0	432	58	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 to 18:00	46	2	0	48	86	1	135	91	4	0	85	77	3	0	274	15	0	290	35	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00 to 18:15	54	0	0	54	109	2	165	103	1	0	104	84	3	0	313	9	0	422	31	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15 to 18:30	62	1	0	63	84	0	147	90	3	1	94	57	1	0	306	13	2	411	38	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30 to 18:45	50	0	0	50	85	2	137	87	2	0	53	59	1	0	203	6	0	209	27	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45 to 19:00	32	1	0	33	57	0	90	59	3	0	62	53	0	0	167	8	2	177	15	2	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>624</b>	<b>31</b>	<b>1</b>	<b>656</b>	<b>1,135</b>	<b>9</b>	<b>1,748</b>	<b>1,193</b>	<b>46</b>	<b>3</b>	<b>1,242</b>	<b>954</b>	<b>29</b>	<b>1</b>	<b>3,984</b>	<b>152</b>	<b>19</b>	<b>4,991</b>	<b>435</b>	<b>12</b>	<b>0</b>	<b>447</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>22</b>		

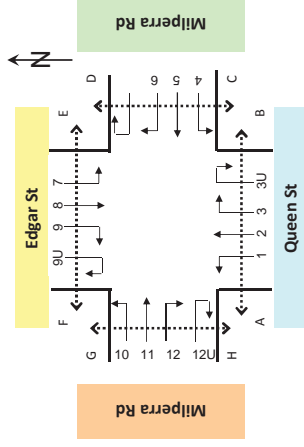
Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 3. Milperra Rd / Queen St / Edgar St

Day/Date : Tuesday, 12th May 2015

Weather : Fine

Description : Classified Intersection Count

: Hourly Summary



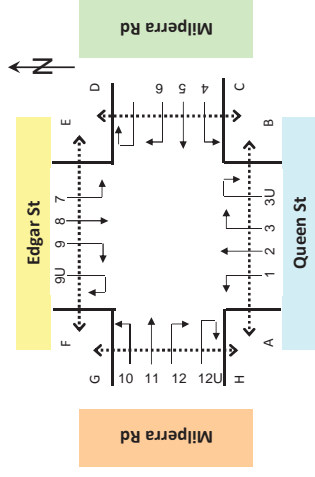
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Approach		Queen St												Milperra Rd																		
Direction	Time Period	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)									
		Cars	Trucks	Buses	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total				
	7:00 to 8:00	66	5	0	71	562	16	5	583	152	16	2	170	0	0	0	0	0	0	0	840	99	9	948	220	23	1	244	0	0	0	0
	7:15 to 8:15	53	3	0	56	582	13	5	600	161	20	2	183	0	0	0	0	0	0	0	925	110	9	1,044	220	23	3	246	0	0	0	0
	7:30 to 8:30	52	3	0	55	574	12	6	592	184	23	1	208	0	0	0	0	0	0	0	918	116	7	1,041	217	23	4	244	0	0	0	0
	7:45 to 8:45	56	4	0	60	554	15	5	574	149	30	2	181	0	0	0	0	0	0	0	942	106	9	1,057	210	28	4	242	1	0	0	1
	8:00 to 9:00	61	5	0	66	522	20	5	547	140	32	2	174	0	0	0	0	0	0	0	962	118	9	1,089	201	29	4	234	1	0	0	1
	8:15 to 9:15	76	9	0	85	544	18	5	567	148	29	1	178	0	0	0	0	0	0	0	875	122	8	1,005	198	31	1	230	1	0	0	1
	8:30 to 9:30	80	9	0	89	533	16	5	554	128	33	1	162	0	0	0	0	0	0	0	876	130	9	1,015	219	40	0	299	1	0	0	1
	8:45 to 9:45	80	8	0	88	500	17	5	522	132	40	0	172	0	0	0	0	0	0	0	797	137	6	940	210	35	0	245	0	0	0	0
	9:00 to 10:00	82	6	0	88	432	13	4	449	135	50	1	186	0	0	0	0	0	0	0	749	132	6	887	221	31	0	252	0	0	0	0
	<b>AM Totals</b>	<b>209</b>	<b>16</b>	<b>0</b>	<b>225</b>	<b>1,516</b>	<b>49</b>	<b>14</b>	<b>1,579</b>	<b>427</b>	<b>98</b>	<b>5</b>	<b>530</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,551</b>	<b>349</b>	<b>24</b>	<b>2,924</b>	<b>642</b>	<b>83</b>	<b>5</b>	<b>730</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
	16:00 to 17:00	69	5	0	74	349	12	2	363	165	11	0	176	0	0	0	0	0	0	0	1,048	70	6	1,124	206	21	1	228	0	0	0	0
	16:15 to 17:15	69	3	0	72	346	11	2	359	167	12	0	179	0	0	0	0	0	0	0	1,010	62	7	1,079	226	18	1	245	0	0	0	0
	16:30 to 17:30	93	3	0	96	342	11	2	355	191	7	0	198	0	0	0	0	0	0	0	1,032	64	8	1,104	227	16	1	244	0	0	0	0
	16:45 to 17:45	94	3	0	97	387	7	2	396	188	6	0	194	0	0	0	0	0	0	0	990	71	6	1,067	211	18	1	230	0	0	0	0
	17:00 to 18:00	97	1	0	98	383	5	1	389	177	4	0	181	0	0	0	0	0	0	0	917	66	6	989	212	12	0	224	0	0	0	0
	17:15 to 18:15	111	0	0	111	372	3	2	377	172	3	0	175	0	0	0	0	0	0	0	857	58	5	920	208	9	0	217	0	0	0	0
	17:30 to 18:30	103	0	0	103	343	1	2	346	139	4	0	143	1	0	0	1	138	818	58	3	879	233	8	1	242	0	0	0	0	0	
	17:45 to 18:45	102	0	0	102	310	1	2	313	122	5	0	127	1	0	0	1	150	768	49	6	823	237	5	1	243	0	0	0	0	0	
	18:00 to 19:00	97	0	0	97	288	0	2	290	123	4	0	127	1	0	0	1	151	770	40	7	817	245	5	1	251	0	0	0	0	0	
	<b>PM Totals</b>	<b>263</b>	<b>6</b>	<b>0</b>	<b>269</b>	<b>1,020</b>	<b>17</b>	<b>5</b>	<b>1,042</b>	<b>465</b>	<b>19</b>	<b>0</b>	<b>484</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>434</b>	<b>176</b>	<b>19</b>	<b>2,735</b>	<b>176</b>	<b>19</b>	<b>2,930</b>	<b>663</b>	<b>38</b>	<b>2</b>	<b>703</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 3. Milperra Rd / Queen St. / Edgar St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary

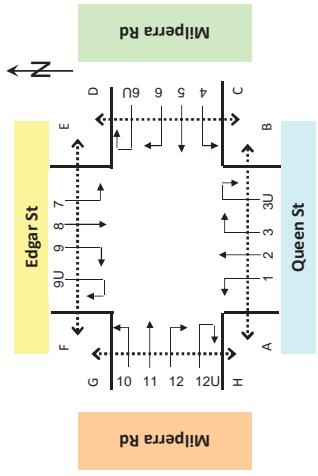


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Approach	Queen St			Milperra Rd			Edgar St			Milperra Rd			Grand Total				
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total					
Time Period																	
8:00 to 9:00	723	57	7	787	1,269	157	13	1,439	816	54	8	878	1,476	185	11	1,672	4,776
16:30 to 17:30	626	21	2	649	1,404	88	9	1,501	1,094	42	4	1,140	1,616	70	8	1,694	4,984

Approach	Queen St			Milperra Rd			Edgar St			Milperra Rd			Grand Total				
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total					
Time Period																	
7:00 to 8:00	780	37	7	824	1,125	133	10	1,268	680	66	7	753	1,503	177	4	1,684	4,529
7:15 to 8:15	796	36	7	839	1,212	145	12	1,369	724	70	8	802	1,430	186	6	1,622	4,632
8:00 to 8:30	810	38	7	855	1,208	152	11	1,371	773	69	7	849	1,500	168	9	1,677	4,752
7:45 to 8:45	759	49	7	815	1,240	147	13	1,400	817	60	11	888	1,460	182	9	1,651	4,754
8:00 to 9:00	723	57	7	787	1,269	157	13	1,439	816	54	8	878	1,476	185	11	1,672	4,776
8:15 to 9:15	768	56	6	830	1,184	162	9	1,355	788	57	6	851	1,462	186	7	1,655	4,691
8:30 to 9:30	741	58	6	805	1,213	181	9	1,403	720	55	7	782	1,332	198	5	1,535	4,525
8:45 to 9:45	712	65	5	782	1,109	185	7	1,301	650	57	2	709	1,286	213	5	1,504	4,296
9:00 to 10:00	649	69	5	723	1,062	180	8	1,250	629	58	2	689	1,160	217	2	1,379	4,041
AM Totals	2,152	163	19	2,334	3,456	470	31	3,957	2,125	178	17	2,320	4,139	579	17	4,735	13,346
16:00 to 17:00	583	28	2	613	1,391	104	7	1,502	1,044	42	3	1,089	1,560	90	10	1,660	4,864
16:15 to 17:15	582	26	2	610	1,373	90	8	1,471	1,055	39	4	1,098	1,607	81	9	1,697	4,876
16:30 to 17:30	626	21	2	649	1,404	88	9	1,501	1,094	42	4	1,140	1,616	70	8	1,694	4,984
16:45 to 17:45	669	16	2	687	1,344	97	7	1,448	1,100	32	4	1,136	1,626	66	7	1,699	4,970
17:00 to 18:00	657	10	1	668	1,275	81	6	1,362	1,071	30	4	1,105	1,607	60	6	1,673	4,808
17:15 to 18:15	655	6	2	663	1,204	70	6	1,280	1,061	24	2	1,087	1,475	58	4	1,537	4,567
17:30 to 18:30	586	5	2	593	1,186	68	5	1,259	1,008	17	2	1,027	1,369	62	3	1,434	4,313
17:45 to 18:45	535	6	2	543	1,155	55	8	1,218	914	17	1	932	1,294	51	3	1,348	4,041
18:00 to 19:00	509	4	2	515	1,166	46	10	1,222	837	14	1	852	1,143	43	4	1,190	3,779
PM Totals	1,749	42	5	1,796	3,832	231	23	4,086	2,952	86	8	3,046	4,310	193	20	4,523	13,451

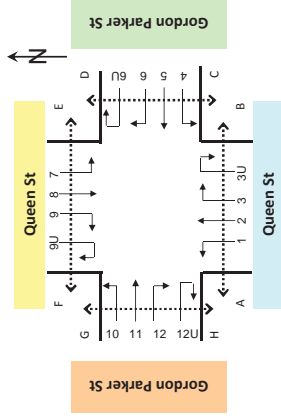
**Job No.** : N1787  
**Client** : Cardno  
**Suburb** : Milperra  
**Location** : 3. Milperra Rd / Queen St / Edgar St  
**Day/Date** : Tuesday, 12th May 2015  
**Weather** : Fine  
**Description** : Classified Intersection Count  
 : Pedestrian Data



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Direction	Pedestrians							
	A	B	C	D	E	F	G	H
7:00 to 7:15	0	0	0	0	0	0	0	0
7:15 to 7:30	0	0	0	0	0	0	0	0
7:30 to 7:45	1	0	0	0	0	0	1	0
7:45 to 8:00	3	0	0	0	0	0	2	0
8:00 to 8:15	1	0	0	0	0	0	1	0
8:15 to 8:30	0	1	0	1	0	0	2	0
8:30 to 8:45	0	0	0	0	0	0	0	0
8:45 to 9:00	0	0	0	0	0	0	0	0
9:00 to 9:15	0	0	0	0	0	0	0	0
9:15 to 9:30	0	0	0	0	0	0	0	0
9:30 to 9:45	1	0	0	0	0	0	1	0
9:45 to 10:00	0	0	0	0	0	0	0	0
<b>AM Totals</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>
16:00 to 16:15	0	4	0	0	0	1	0	1
16:15 to 16:30	1	0	0	0	0	0	1	1
16:30 to 16:45	0	0	0	0	0	1	0	3
16:45 to 17:00	0	1	0	0	0	0	1	1
17:00 to 17:15	0	1	1	0	0	0	1	0
17:15 to 17:30	1	1	0	0	0	0	0	0
17:30 to 17:45	0	0	0	0	0	0	0	0
17:45 to 18:00	0	1	0	0	0	0	0	0
18:00 to 18:15	0	0	0	0	0	0	0	0
18:15 to 18:30	0	0	0	0	0	0	0	0
18:30 to 18:45	0	0	0	0	0	0	0	0
18:45 to 19:00	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>6</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 4. Queen St / Gordon Parker St  
 Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : 15 mins Data



SKYHIGH - THE TRAFFIC SURVEY COMPANY

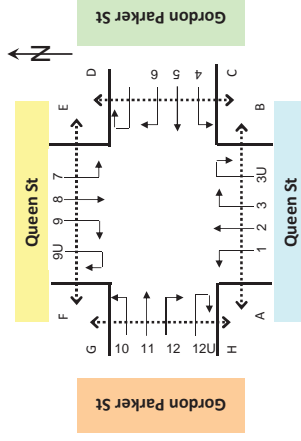
Class 1		Class 2		Class 3	
Cars	Trucks	Cars	Trucks	Buses	Buses

Approach	Queen St												Gordon Parker St													
	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)				
Direction	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total		
7:00 to 7:15	24	1	0	25	163	2	0	165	6	0	0	6	0	0	0	9	3	0	12	0	0	0	3	0	0	3
7:15 to 7:30	27	0	0	27	210	3	2	215	6	0	0	6	0	0	0	19	0	0	19	1	0	1	1	0	0	1
7:30 to 7:45	44	0	0	44	188	3	1	192	7	0	0	7	0	0	0	16	0	0	16	0	0	0	1	0	0	1
7:45 to 8:00	49	1	0	50	213	3	1	217	10	0	0	10	0	0	0	7	0	0	7	0	0	0	0	0	0	0
8:00 to 8:15	45	0	0	45	186	2	0	188	3	0	0	3	0	0	0	11	1	0	12	1	0	1	1	0	0	1
8:15 to 8:30	31	0	0	31	188	5	1	194	5	0	0	5	0	0	0	15	0	0	15	0	0	0	0	0	0	0
8:30 to 8:45	34	3	2	39	172	4	1	177	5	0	0	5	0	0	0	32	1	0	33	0	0	0	0	0	0	0
8:45 to 9:00	38	2	3	43	185	3	1	189	7	0	0	7	0	0	0	25	0	0	25	1	0	1	0	0	0	0
9:00 to 9:15	20	4	2	26	160	2	1	163	6	0	0	6	0	0	0	16	1	0	17	0	0	0	0	0	0	0
9:15 to 9:30	14	0	0	14	122	5	1	128	6	0	0	6	0	0	0	14	1	0	15	0	0	0	0	0	0	0
9:30 to 9:45	13	1	1	15	103	10	0	113	2	0	0	2	0	0	0	8	0	0	8	0	0	0	1	0	0	1
9:45 to 10:00	22	1	0	23	96	1	1	98	5	0	0	5	0	0	0	12	0	0	12	1	0	1	1	0	0	1
<b>AM Totals</b>	<b>361</b>	<b>13</b>	<b>8</b>	<b>382</b>	<b>1,986</b>	<b>43</b>	<b>10</b>	<b>2,039</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>184</b>	<b>7</b>	<b>0</b>	<b>191</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>
16:00 to 16:15	13	0	4	17	105	0	0	105	7	0	0	7	0	0	0	22	1	0	23	0	0	0	1	0	0	1
16:15 to 16:30	10	1	1	12	118	1	1	120	8	0	0	8	0	0	0	21	0	0	21	0	0	0	0	0	0	0
16:30 to 16:45	5	0	0	5	97	2	0	99	7	0	0	7	0	0	0	23	0	0	23	0	0	0	1	0	0	1
16:45 to 17:00	7	0	0	7	101	1	1	103	10	0	0	10	0	0	0	16	0	0	16	0	0	0	1	0	0	1
17:00 to 17:15	5	0	0	5	130	1	1	132	4	0	0	4	0	0	0	31	0	0	31	1	0	1	0	0	0	0
17:15 to 17:30	9	0	0	9	103	2	1	106	10	0	0	10	0	0	0	19	0	0	19	0	0	0	1	0	0	1
17:30 to 17:45	5	0	1	6	120	1	0	121	9	1	0	10	0	0	0	27	0	0	27	0	0	0	1	0	0	1
17:45 to 18:00	1	0	1	2	118	1	1	120	10	0	0	10	0	0	0	30	0	0	30	0	0	0	0	0	0	0
18:00 to 18:15	5	0	0	5	112	2	0	114	10	1	0	11	0	0	0	20	0	0	20	0	0	0	0	0	0	0
18:15 to 18:30	4	0	0	4	114	1	0	115	6	0	0	6	0	0	0	16	1	0	17	0	0	0	0	0	0	0
18:30 to 18:45	1	1	0	2	89	0	0	89	9	0	0	9	0	0	0	19	0	0	19	0	0	0	1	0	0	1
18:45 to 19:00	4	0	3	7	62	0	0	62	6	0	0	6	0	0	0	18	1	0	19	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>69</b>	<b>2</b>	<b>10</b>	<b>81</b>	<b>1,269</b>	<b>12</b>	<b>5</b>	<b>1,286</b>	<b>96</b>	<b>2</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>262</b>	<b>3</b>	<b>0</b>	<b>265</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>



Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 4. Queen St / Gordon Parker St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Hourly Summary



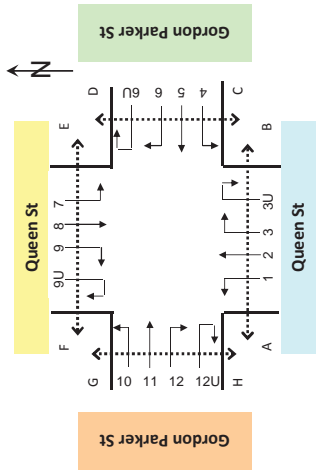
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Queen St												Gordon Parker St																							
	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)							
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total
7:00 to 8:00	144	2	0	146	774	11	4	789	29	0	0	29	0	0	0	0	51	3	0	54	1	0	0	1	0	0	0	0	5	0	0	5	0	0	0	0
7:15 to 8:15	165	1	0	166	797	11	4	812	26	0	0	26	0	0	0	0	53	1	0	54	2	0	0	2	0	0	0	0	3	0	0	3	0	0	0	0
7:30 to 8:30	169	1	0	170	775	13	3	791	25	0	0	25	0	0	0	0	49	1	0	50	1	0	0	1	0	0	0	0	2	0	0	2	0	0	0	0
7:45 to 8:45	159	4	2	165	759	14	3	776	23	0	0	23	0	0	0	0	65	2	0	67	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0
8:00 to 9:00	148	5	5	158	731	14	3	748	20	0	0	20	0	0	0	0	83	2	0	85	2	0	0	2	1	0	0	1	0	0	0	0	1	0	0	1
8:15 to 9:15	123	9	7	139	705	14	4	723	23	0	0	23	0	0	0	0	88	2	0	90	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:30 to 9:30	106	9	7	122	639	14	4	657	24	0	0	24	0	0	0	0	87	3	0	90	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:45 to 9:45	85	7	6	98	570	20	3	593	21	0	0	21	0	0	0	0	63	2	0	65	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0
9:00 to 10:00	69	6	3	78	481	18	3	502	19	0	0	19	0	0	0	0	50	2	0	52	1	0	0	1	2	0	0	2	0	0	0	0	2	0	0	2
<b>AM Totals</b>	<b>361</b>	<b>13</b>	<b>8</b>	<b>382</b>	<b>1,986</b>	<b>43</b>	<b>10</b>	<b>2,039</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>184</b>	<b>7</b>	<b>0</b>	<b>191</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
16:00 to 17:00	35	1	5	41	421	4	2	427	32	0	0	32	0	0	0	0	82	1	0	83	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0
16:15 to 17:15	27	1	1	29	446	5	3	454	29	0	0	29	0	0	0	0	91	0	0	91	1	0	0	1	2	0	0	2	0	0	0	0	2	0	0	2
16:30 to 17:30	26	0	0	26	431	6	3	440	31	0	0	31	0	0	0	0	89	0	0	89	1	0	0	1	3	0	0	3	0	0	0	0	3	0	0	3
16:45 to 17:45	26	0	1	27	454	5	3	462	33	1	0	34	0	0	0	0	93	0	0	93	1	0	0	1	3	0	0	3	0	0	0	0	3	0	0	3
17:00 to 18:00	20	0	2	22	471	5	3	479	33	1	0	34	0	0	0	0	107	0	0	107	1	0	0	1	2	0	0	2	0	0	0	0	2	0	0	2
17:15 to 18:15	20	0	2	22	453	6	2	461	39	2	0	41	0	0	0	0	96	0	0	96	0	0	0	0	2	0	0	2	0	0	0	0	2	0	0	2
17:30 to 18:30	15	0	2	17	464	5	1	470	35	2	0	37	0	0	0	0	93	1	0	94	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1
17:45 to 18:45	11	1	1	13	433	4	1	438	35	1	0	36	0	0	0	0	85	1	0	86	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
18:00 to 19:00	14	1	3	18	377	3	0	380	31	1	0	32	0	0	0	0	73	2	0	75	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1
<b>PM Totals</b>	<b>69</b>	<b>2</b>	<b>10</b>	<b>81</b>	<b>1,269</b>	<b>12</b>	<b>5</b>	<b>1,286</b>	<b>96</b>	<b>2</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>262</b>	<b>3</b>	<b>0</b>	<b>265</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>

Approach	Queen St												Gordon Parker St												Crossing Pedestrians												
	Direction 7 (Left Turn)				Direction 8 (Through)				Direction 9 (Right Turn)				Direction 9U (U Turn)				Direction 10 (Left Turn)				Direction 11 (Through)				Direction 12 (Right Turn)				Direction 12U (U Turn)								
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	A	B	C	D	E	F	G	H	Total
7:00 to 8:00	18	1	0	19	246	17	5	270	53	11	0	64	3	0	0	3	39	22	3	64	0	0	0	0	13	3	0	16	0	0	0	0	0	0	0	0	0
7:15 to 8:15	15	1	0	16	275	15	5	295	50	13	0	63	1	0	0	1	38	19	3	60	2	0	0	2	13	6	2	21	0	0	0	0	0	0	0	0	0
7:30 to 8:30	13	2	0	15	315	18	5	338	43	14	0	57	0	0	0	0	47	18	1	66	2	0	0	2	12	6	2	20	0	0	0	0	0	0	0	0	0
7:45 to 8:45	11	2	0	13	386	17	7	410	37	12	0	49	0	0	0	0	47	23	0	70	2	0	0	2	18	6	1	25	1	0	3	2	0	0	5	2	13
8:00 to 9:00	9	2	0	11	439	18	4	461	36	12	0	48	0	0	0	0	50	24	0	74	2	0	0	2	23	7	0	30	1	0	2	2	0	1	4	2	12
8:15 to 9:15	12	2	0	14	435	16	4	455	45	13	0	58	0	0	0	0	56	26	0	82	0	0	0	0	26	3	0	29	1	0	2	1	0	1	3	1	9
8:30 to 9:30	11	2	0	13	416	13	4	433	46	14	0	60	0	0	0	0	58	30	0	88	1	0	0	1	34	2	0	36	0	0	2	0	0	1	0	0	4
8:45 to 9:45	10	2	0	12	377	22	3	382	42	16	0	58	0	0	0	0	73	32	3	107	1	0	0	1	36	2	0	38	0	0	0	0	0	0	0	0	0
9:00 to 10:00	7	1	0	8	299	24	3	326	46	16	0	62	0	0	0	0	85	37	2	124	1	0	0	1	30	4	1	35	0	0	2	4	0	0	1	0	7
<b>AM Totals</b>	<b>34</b>	<b>4</b>	<b>0</b>	<b>38</b>	<b>386</b>	<b>59</b>	<b>12</b>	<b>1,057</b>	<b>135</b>	<b>39</b>	<b>0</b>	<b>174</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>174</b>	<b>83</b>	<b>5</b>	<b>262</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>66</b>	<b>14</b>	<b>4</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>
16:00 to 17:00	19	1	0	20	612	11	2	625	27	12	0	39	1	0	0	1	154	14	0	168	6	0	0	6	103	2	0	105	0	0	2	0	1	0	1	7	12
16:15 to 17:15	25	1	0	26	679	9	2	690	25	11	0	36	1	0	0	1	147	15	0	162	5	0	0	5	102	2	0	104	0	0	2	2	1	0	0	5	10
16:30 to 17:30	24	0	0	24	679	12	1	692	23	9	0	32	1	0	0	1	150	15	0	165	7	0	0	7	110	2	0	112	0	0	1	3	1	0	0	5	10
16:45 to 17:45	24	0	0	24	600	9	2	609	30	5	0	35	0	0	0	0	134	14	0	148	8	0	0	8	118	1	0	119	0	0	0	0	0	0	0	0	10
17:00 to 18:00	23	0	0	23	681	8	1	690	22	4	0	26	0	0	0	0	125	8	0	133	5	0	0	5	116	0	0	116	0	0	1	6	0	0	0	0	9
17:15 to 18:15	23	0	0	23	652	8	1	671	15	3	0	18	0	0	0	0	95	7	0	102	5	0	0	5	92	0	1	93	0	0	1	4	0	0	0	3	8
17:30 to 18:30	23	0	0	23	665	4	1	670	16	3	0	19	2	0	0	2	76	4	0	80	4	0	0	4	66	1	1	68	0	0	1	5	0	0	0	4	10
17:45 to 18:45	26	0	0	26	635	3	0	638	14	4	0	18	3	0	0	3	70	4	0	74	3	0	0	3	37	1	1	39	0	0	1	2	0	0	0	3	6
18:00 to 19:00	21	1	0	22	582	5	0	587	9	2	1	12	3	0	0	3	55	4	0	59	3	0	0	3	22	2	1	25	0	0	0	2	0	0	0	2	4
<b>PM Totals</b>	<b>63</b>	<b>2</b>	<b>0</b>	<b>65</b>	<b>1,875</b>	<b>24</b>	<b>3</b>	<b>1,902</b>	<b>58</b>	<b>18</b>	<b>1</b>	<b>77</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>334</b>	<b>26</b>	<b>0</b>	<b>360</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>241</b>	<b>4</b>	<b>1</b>	<b>246</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>25</b>



**Job No.** : N1787  
**Client** : Cardno  
**Suburb** : Milperra  
**Location** : 4. Queen St / Gordon Parker St  
**Day/Date** : Tuesday, 12th May 2015  
**Weather** : Fine  
**Description** : Classified Intersection Count  
 : Pedestrian Data



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

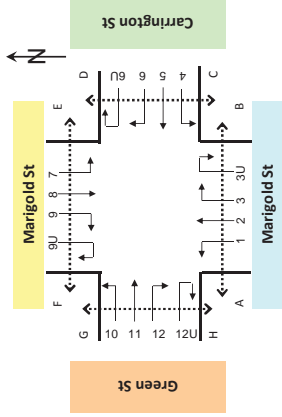
Direction	Pedestrians							
	A	B	C	D	E	F	G	H
7:00 to 7:15	0	1	0	1	0	0	0	0
7:15 to 7:30	0	0	0	0	0	0	0	0
7:30 to 7:45	0	0	1	1	0	0	1	0
7:45 to 8:00	0	0	1	0	0	0	1	0
8:00 to 8:15	0	0	2	1	0	0	1	1
8:15 to 8:30	0	0	0	1	0	0	3	1
8:30 to 8:45	1	0	0	0	0	0	0	0
8:45 to 9:00	0	0	0	0	0	1	0	0
9:00 to 9:15	0	0	2	0	0	0	0	0
9:15 to 9:30	0	0	0	0	0	0	0	0
9:30 to 9:45	0	0	0	4	0	0	1	0
9:45 to 10:00	0	0	0	0	0	0	0	0
<b>AM Totals</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>2</b>
16:00 to 16:15	0	1	0	0	0	0	1	2
16:15 to 16:30	0	0	1	0	0	0	0	0
16:30 to 16:45	0	0	1	0	1	0	0	2
16:45 to 17:00	0	0	0	0	0	0	0	3
17:00 to 17:15	0	0	0	2	0	0	0	0
17:15 to 17:30	0	0	0	1	0	0	0	0
17:30 to 17:45	0	0	0	3	0	0	0	1
17:45 to 18:00	0	0	1	0	0	0	0	1
18:00 to 18:15	0	0	0	0	0	0	0	1
18:15 to 18:30	0	0	0	2	0	0	0	1
18:30 to 18:45	0	0	0	0	0	0	0	0
18:45 to 19:00	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>11</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 5. Marigold St / Carrington St / Green St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : 15 mins Data



SKYHIGH - THE TRAFFIC SURVEY COMPANY



Class 1		Class 2		Class 3	
Cars	Trucks	Cars	Trucks	Buses	Buses

Approach	Marigold St												Carrington St																
	Direction 1 (Left Turn)			Direction 2 (Through)			Direction 3 (Right Turn)			Direction 3U (U Turn)			Direction 4 (Left Turn)			Direction 5 (Through)			Direction 6 (Right Turn)			Direction 6U (U Turn)							
Direction	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total					
7:00 to 7:15	0	0	0	33	4	0	37	7	4	0	11	0	0	0	0	2	0	1	3	0	0	0	0	0	0				
7:15 to 7:30	3	0	0	42	2	0	44	19	0	0	19	1	0	0	1	8	1	0	9	0	0	0	0	0	0				
7:30 to 7:45	3	1	0	63	4	0	67	12	0	0	12	0	0	0	14	11	2	1	14	1	0	0	1	5	0	0			
7:45 to 8:00	2	0	0	75	4	0	79	10	1	0	11	0	0	0	8	7	1	0	8	0	0	0	0	0	0	0			
8:00 to 8:15	0	0	0	74	5	0	79	11	0	0	11	0	0	0	6	5	1	0	6	0	0	0	10	1	0	0			
8:15 to 8:30	3	0	0	86	3	0	89	12	1	0	13	0	0	0	1	1	0	0	1	0	0	0	11	4	0	0			
8:30 to 8:45	2	1	0	78	8	0	86	15	1	0	16	0	0	0	12	9	3	0	12	1	0	0	14	7	0	0			
8:45 to 9:00	3	0	0	55	5	0	60	11	1	0	12	0	0	0	7	1	0	8	0	0	0	0	11	6	0	0			
9:00 to 9:15	3	1	0	41	4	0	45	12	2	0	14	1	0	0	8	1	0	9	1	1	0	2	12	3	0	0			
9:15 to 9:30	3	0	0	31	5	0	36	12	7	0	19	0	0	0	7	0	0	7	0	0	0	9	4	0	0	0			
9:30 to 9:45	3	0	0	34	3	0	37	7	0	2	9	0	0	0	8	2	0	10	0	0	0	4	2	0	0	1			
9:45 to 10:00	1	1	0	31	8	0	39	11	5	0	16	0	0	0	11	0	0	11	0	0	0	12	3	0	0	0			
<b>AM Totals</b>	<b>26</b>	<b>4</b>	<b>0</b>	<b>643</b>	<b>55</b>	<b>0</b>	<b>698</b>	<b>139</b>	<b>22</b>	<b>2</b>	<b>163</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>84</b>	<b>12</b>	<b>2</b>	<b>98</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>100</b>	<b>39</b>	<b>0</b>	<b>139</b>		
16:00 to 16:15	1	0	0	39	5	0	44	6	2	0	8	0	0	0	14	0	0	14	0	0	0	12	1	0	0	0	0		
16:15 to 16:30	1	0	0	33	2	0	35	1	0	0	1	0	0	0	10	1	0	11	0	0	0	5	1	0	0	6	0	0	
16:30 to 16:45	0	0	0	41	1	0	42	6	0	0	6	0	0	0	18	0	0	18	0	0	0	15	2	0	0	17	0	0	
16:45 to 17:00	0	0	0	25	1	0	26	7	1	0	8	0	0	0	6	0	0	6	0	0	0	5	1	0	0	6	0	1	
17:00 to 17:15	1	0	0	37	2	0	39	6	0	0	6	0	0	0	12	0	0	12	0	0	0	10	1	0	0	11	0	0	
17:15 to 17:30	0	0	0	34	1	0	35	3	1	0	4	0	0	0	13	0	0	13	0	0	0	5	1	0	0	6	0	0	
17:30 to 17:45	1	0	0	25	2	0	27	3	0	0	3	0	0	0	9	0	0	9	1	0	0	3	1	0	0	4	0	0	
17:45 to 18:00	0	0	0	20	1	0	21	1	1	0	2	0	0	0	11	1	0	12	0	0	0	4	1	0	0	5	0	0	
18:00 to 18:15	0	0	0	14	2	0	16	2	0	1	3	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	1	0	0
18:15 to 18:30	0	0	0	16	1	0	17	4	0	0	4	0	0	0	5	0	0	5	0	0	0	8	0	0	0	8	0	0	
18:30 to 18:45	0	0	0	9	0	0	9	5	1	1	7	0	0	0	2	0	0	2	0	0	0	2	0	0	0	2	0	0	
18:45 to 19:00	0	0	0	18	1	0	19	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	
<b>PM Totals</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>311</b>	<b>19</b>	<b>0</b>	<b>330</b>	<b>45</b>	<b>6</b>	<b>2</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>2</b>	<b>0</b>	<b>108</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>70</b>	<b>10</b>	<b>0</b>	<b>80</b>		



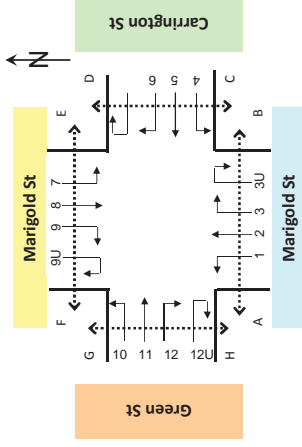
Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 5. Marigold St / Carrington St / Green St

Day/Date : Tuesday, 12th May 2015

Weather : Fine

Description : Classified Intersection Count

: Hourly Summary



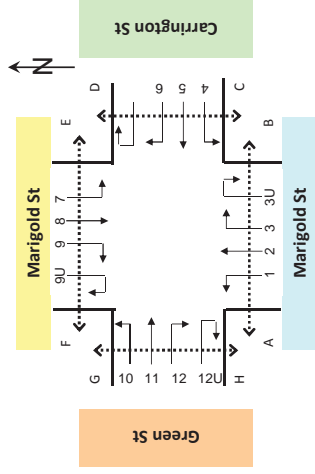
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Marigold St												Carrington St																											
	Direction 1 (Left Turn)				Direction 2 (Through)				Direction 3 (Right Turn)				Direction 3U (U Turn)				Direction 4 (Left Turn)				Direction 5 (Through)				Direction 6 (Right Turn)				Direction 6U (U Turn)											
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total				
7:00 to 8:00	8	1	0	9	213	14	0	227	48	5	0	53	1	0	0	1	28	4	2	34	1	0	0	1	0	0	0	0	17	9	0	26	0	0	0	0	0	0	0	0
7:15 to 8:15	8	1	0	9	254	15	0	269	52	1	0	53	1	0	0	1	31	5	1	37	1	0	0	1	22	7	0	29	0	0	0	0	22	7	0	29	0	0	0	0
7:30 to 8:30	8	1	0	9	298	16	0	314	45	2	0	47	0	0	0	0	24	4	1	29	1	0	0	1	33	8	0	41	0	0	0	0	0	0	0	0	0	0	0	0
7:45 to 8:45	7	1	0	8	313	20	0	333	48	3	0	51	0	0	0	0	22	5	0	27	1	0	0	1	42	15	0	57	0	0	0	0	0	0	0	0	0	0	0	0
8:00 to 9:00	8	1	0	9	293	21	0	314	49	3	0	52	0	0	0	0	22	5	0	27	1	0	0	1	46	18	0	64	0	0	0	0	0	0	0	0	0	0	0	0
8:15 to 9:15	11	2	0	13	260	20	0	280	50	5	0	55	1	0	0	1	25	5	0	30	2	1	0	3	48	20	0	68	0	0	0	0	0	0	0	0	0	0	0	0
8:30 to 9:30	11	2	0	13	205	22	0	227	50	11	0	61	1	0	0	1	31	5	0	36	2	1	0	3	46	20	0	66	0	0	0	0	0	0	0	0	0	0	0	0
8:45 to 9:45	12	1	0	13	161	17	0	178	42	10	2	54	1	0	0	1	30	4	0	34	1	1	0	2	36	15	0	51	1	0	0	1	0	0	0	0	0	0	0	0
9:00 to 10:00	10	2	0	12	137	20	0	157	42	14	2	58	1	0	0	1	34	3	0	37	1	1	0	2	37	12	0	49	1	0	0	1	0	0	0	0	0	0	0	0
<b>AM Totals</b>	<b>26</b>	<b>4</b>	<b>0</b>	<b>30</b>	<b>643</b>	<b>55</b>	<b>0</b>	<b>698</b>	<b>139</b>	<b>22</b>	<b>2</b>	<b>163</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>84</b>	<b>12</b>	<b>2</b>	<b>98</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>100</b>	<b>39</b>	<b>0</b>	<b>139</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>				
16:00 to 17:00	2	0	0	2	138	9	0	147	20	3	0	23	0	0	0	0	48	1	0	49	0	0	0	0	37	5	0	42	0	0	0	0	0	0	0	0	0	0	0	0
16:15 to 17:15	2	0	0	2	136	6	0	142	20	1	0	21	0	0	0	0	46	1	0	47	0	0	0	0	35	5	0	40	0	0	0	0	0	0	0	0	0	0	0	0
16:30 to 17:30	1	0	0	1	137	5	0	142	22	2	0	24	0	0	0	0	49	0	0	49	0	0	0	0	35	5	0	40	0	0	0	0	0	0	0	0	0	0	0	0
16:45 to 17:45	2	0	0	2	121	6	0	127	19	2	0	21	0	0	0	0	40	0	0	40	1	0	0	1	23	4	0	27	0	0	0	0	0	0	0	0	0	0	0	0
17:00 to 18:00	2	0	0	2	116	6	0	122	13	2	0	15	0	0	0	0	45	1	0	46	1	0	0	1	22	4	0	26	0	0	0	0	0	0	0	0	0	0	0	0
17:15 to 18:15	1	0	0	1	93	6	0	99	9	2	1	12	0	0	0	0	38	1	0	39	1	0	0	1	12	4	0	16	0	0	0	0	0	0	0	0	0	0	0	0
17:30 to 18:30	1	0	0	1	75	6	0	81	10	1	1	12	0	0	0	0	30	1	0	31	1	0	0	1	15	3	0	18	0	0	0	0	0	0	0	0	0	0	0	0
17:45 to 18:45	0	0	0	0	59	4	0	63	12	2	2	16	0	0	0	0	23	1	0	24	0	0	0	0	14	2	0	16	0	0	0	0	0	0	0	0	0	0	0	0
18:00 to 19:00	0	0	0	0	57	4	0	61	12	1	2	15	0	0	0	0	13	0	0	13	0	0	0	0	11	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>311</b>	<b>19</b>	<b>0</b>	<b>330</b>	<b>45</b>	<b>6</b>	<b>2</b>	<b>53</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>2</b>	<b>0</b>	<b>108</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>70</b>	<b>10</b>	<b>0</b>	<b>80</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>				



Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 5. Marigold St / Carrington St / Green St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Peak Hour Summary



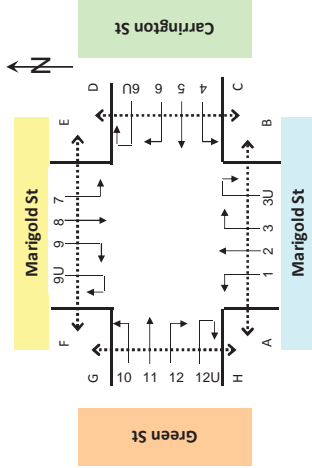
**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Approach	Marigold St			Carrington St			Marigold St			Green St			Grand Total
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
<b>Time Period</b>													
8:00 to 9:00	350	25	0	375	69	23	0	92	264	56	1	321	795
16:30 to 17:30	160	7	0	167	84	6	0	90	285	28	1	314	592

Approach	Marigold St			Carrington St			Marigold St			Green St			Grand Total
	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	Cars	Trucks	Buses	Total	
<b>Time Period</b>													
7:00 to 8:00	270	20	0	290	46	13	2	61	241	34	1	276	637
7:15 to 8:15	315	17	0	332	54	12	1	67	227	43	2	272	679
7:30 to 8:30	351	19	0	370	58	12	1	71	232	40	2	274	721
7:45 to 8:45	368	24	0	392	65	20	0	85	256	52	2	310	791
8:00 to 9:00	350	25	0	375	69	23	0	92	264	56	1	321	795
8:15 to 9:15	322	27	0	349	75	26	0	101	274	52	0	326	787
8:30 to 9:30	267	35	0	302	79	26	0	105	259	54	0	313	739
8:45 to 9:45	216	28	2	246	68	20	0	88	229	57	1	287	642
9:00 to 10:00	190	36	2	228	73	16	0	89	215	55	1	271	610
<b>AM Totals</b>	<b>810</b>	<b>81</b>	<b>2</b>	<b>893</b>	<b>188</b>	<b>52</b>	<b>2</b>	<b>242</b>	<b>720</b>	<b>145</b>	<b>3</b>	<b>868</b>	<b>2,042</b>
16:00 to 17:00	160	12	0	172	85	7	0	92	267	36	0	303	591
16:15 to 17:15	158	7	0	165	81	7	0	88	281	31	1	313	585
16:30 to 17:30	160	7	0	167	84	6	0	90	285	28	1	314	592
16:45 to 17:45	142	8	0	150	64	5	0	69	266	18	1	285	524
17:00 to 18:00	131	8	0	139	68	5	0	73	240	11	1	252	479
17:15 to 18:15	103	8	1	112	51	5	0	56	196	10	0	206	388
17:30 to 18:30	86	7	1	94	46	4	0	50	144	10	0	154	309
17:45 to 18:45	71	6	2	79	37	3	0	40	138	7	0	145	272
18:00 to 19:00	69	5	2	76	24	1	0	25	118	7	0	125	233
<b>PM Totals</b>	<b>360</b>	<b>25</b>	<b>2</b>	<b>387</b>	<b>177</b>	<b>13</b>	<b>0</b>	<b>190</b>	<b>625</b>	<b>54</b>	<b>1</b>	<b>680</b>	<b>1,303</b>

Job No. : N1787  
 Client : Cardno  
 Suburb : Milperra  
 Location : 5. Marigold St / Carrington St / Green St

Day/Date : Tuesday, 12th May 2015  
 Weather : Fine  
 Description : Classified Intersection Count  
 : Pedestrian Data



**SKYHIGH - THE TRAFFIC SURVEY COMPANY**

Direction	Pedestrians							
	A	B	C	D	E	F	G	H
7:00 to 7:15	0	0	0	1	0	0	1	0
7:15 to 7:30	0	0	0	0	1	1	1	1
7:30 to 7:45	0	0	1	1	1	1	0	1
7:45 to 8:00	0	0	1	0	2	2	1	0
8:00 to 8:15	0	0	0	1	1	1	0	1
8:15 to 8:30	0	0	2	1	0	0	0	0
8:30 to 8:45	0	0	0	0	1	2	0	0
8:45 to 9:00	0	0	1	2	1	0	0	1
9:00 to 9:15	0	0	1	0	1	0	0	0
9:15 to 9:30	0	0	0	0	0	1	0	1
9:30 to 9:45	0	0	0	0	1	1	0	0
9:45 to 10:00	1	1	1	1	1	0	0	1
<b>AM Totals</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>6</b>
16:00 to 16:15	0	0	0	0	0	0	0	0
16:15 to 16:30	0	0	0	0	0	0	1	1
16:30 to 16:45	0	0	0	0	0	1	1	0
16:45 to 17:00	0	0	1	0	0	0	2	0
17:00 to 17:15	0	0	0	0	0	0	1	0
17:15 to 17:30	0	0	0	0	0	0	0	0
17:30 to 17:45	0	0	0	0	0	0	0	0
17:45 to 18:00	0	0	0	0	0	0	0	0
18:00 to 18:15	0	0	0	0	0	0	0	0
18:15 to 18:30	0	0	0	0	0	0	0	0
18:30 to 18:45	0	0	0	0	0	0	0	0
18:45 to 19:00	0	0	0	0	0	0	0	0
<b>PM Totals</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>1</b>

# APPENDIX B

Spreadsheet Models



**2017 AM + Development**

Growth Factor: 1.39% per year

No. years: 2

Total Growth: 2.80%

0 0  
126 1723

0 0  
156 1839

33 363  
145 1099

Edgar St

33 19 27  
377 257 168

53 277

0 0

7 80

169 0 137

19 0 0

53 590 189

23 0 35

10 0 0

3 19 25

1037 115

1242 144

946 131

255 29

49 16

75 13

Milperra Rd

Site

Violet St

2 4

20 48

1 1

0 2

14 24 2

0 1

8 12

44 324 13

Green St

Carrington St

9 323 51

42 13

183 797 26

1 0 0

1 16 0

30 5

50 1

Gordon Parker St

Marigold St

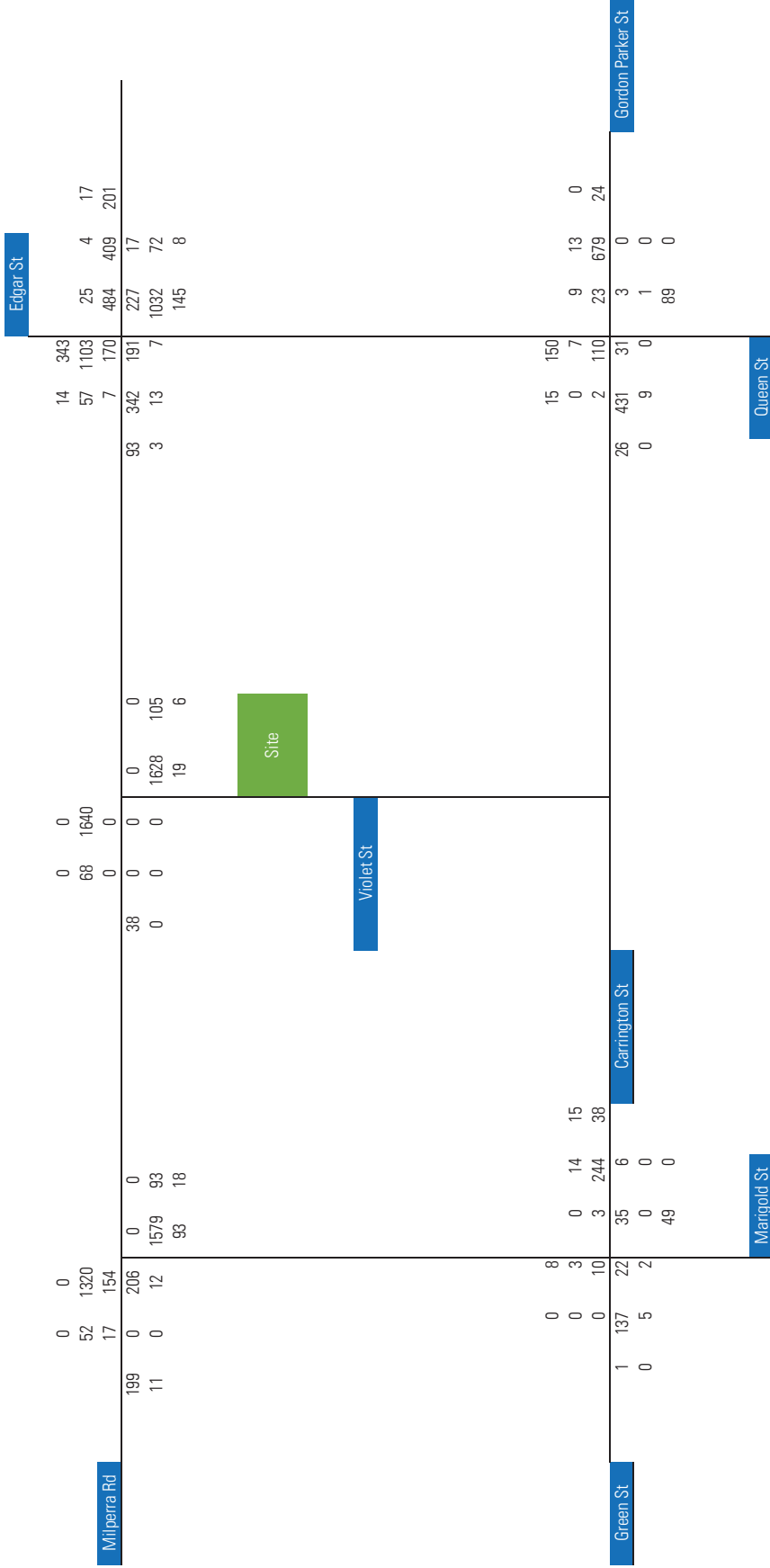
Queen St







2015 PM Base Case



**2017 PIM - No Development**

Growth Factor: 1.39% per year  
 No. years: 2  
 Total Growth: 2.80%

Milperra rd	Green St	Margold St	Carrington St	Violet St	Site	Edgar St
205	1	1	0	39	0	14
0	141	0	0	0	0	353
11	5	0	0	0	1674	59
0	2	0	0	0	20	1134
0	0	0	0	0	6	175
0	8	0	0	0	0	420
0	3	0	0	0	0	207
0	10	0	0	0	0	0
0	23	0	0	0	0	0
0	2	0	0	0	0	0
0	10	0	0	0	0	0
0	36	0	0	0	0	0
0	6	0	0	0	0	0
0	251	0	0	0	0	0
0	39	0	0	0	0	0
0	14	0	0	0	0	0
0	15	0	0	0	0	0
0	39	0	0	0	0	0
15	154	15	154	15	154	15
0	7	0	7	0	7	0
2	113	2	113	2	113	2
27	443	27	443	27	443	27
0	9	0	9	0	9	0
0	0	0	0	0	0	0
91	0	91	0	91	0	91
3	0	3	0	3	0	3
1	0	1	0	1	0	1
24	698	24	698	24	698	24
9	13	9	13	9	13	9
0	0	0	0	0	0	0
25	25	25	25	25	25	25



**2027 PM - No Development**

Growth Factor: 1.39% per year  
 No. years: 12  
 Total Growth: 18.02%

Green St	Milperra rd	Margold St	Carrington St	Violet St	Edgar St	Gordon Parker St	Queen St
1	235	0	0	0	17	405	
0	13	0	45	0	67	1302	
6	0	1	0	0	8	201	
2	0	1863	0	0	404	225	
0	14	110	0	1921	4	8	
12	21	21	0	22	15	1218	
26	0	0	0	7	171	85	
9	0	0	0	0	268	20	
4	0	0	0	0	571	483	
0	0	0	0	0	30	5	
18	0	0	0	0	11	15	
45	0	0	0	0	27	801	
7	0	41	0	0	4	0	
288	0	0	0	0	1	0	
45	0	58	0	0	105	0	
7	0	0	0	0	4	0	
11	0	0	0	0	1	0	
18	0	0	0	0	27	801	
177	0	0	0	0	4	0	
177	0	0	0	0	11	15	
177	0	0	0	0	27	801	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
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177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
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177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
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177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
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177	0	0	0	0	105	0	
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177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0	0	0	1	0	
177	0	0	0	0	105	0	
177	0	0	0	0	4	0	
177	0	0					



# APPENDIX C

SIDRA Outputs

# MOVEMENT SUMMARY

 Site: AM Base 2015

New Site

Signals - Fixed Time Isolated Cycle Time = 145 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	55	5.5	0.052	14.8	LOS B	1.3	9.8	0.41	0.64	48.9
2	T1	592	3.0	0.968	104.2	LOS F	28.8	206.9	1.00	1.26	22.4
3	R2	208	11.5	0.930	96.0	LOS F	17.8	137.2	1.00	1.08	23.5
Approach		855	5.3	0.968	96.4	LOS F	28.8	206.9	0.96	1.18	23.4
East: Milperra Road											
4	L2	86	15.1	0.070	10.5	LOS A	1.3	10.6	0.28	0.64	53.5
5	T1	1041	11.8	0.753	51.0	LOS D	24.9	191.7	0.95	0.84	35.6
6	R2	244	11.1	0.949	103.4	LOS F	22.1	169.0	1.00	1.06	22.7
Approach		1371	11.9	0.949	57.8	LOS E	24.9	191.7	0.92	0.87	33.0
North: Edgar Street											
7	L2	189	13.8	0.215	22.6	LOS B	6.8	53.4	0.55	0.70	43.0
8	T1	268	6.7	0.795	53.9	LOS D	17.4	128.7	0.91	0.85	32.1
9	R2	392	8.2	0.770	44.4	LOS D	9.6	71.6	0.99	0.86	35.0
Approach		849	9.0	0.795	42.6	LOS D	17.4	128.7	0.87	0.82	35.4
West: Milperra Road											
10	L2	385	8.3	0.350	18.3	LOS B	11.8	88.6	0.51	0.72	48.2
11	T1	1206	11.4	0.956	92.0	LOS F	45.3	347.6	0.98	1.18	25.5
12	R2	85	8.2	0.328	66.6	LOS E	5.4	40.8	0.94	0.77	29.6
Approach		1676	10.5	0.956	73.8	LOS F	45.3	347.6	0.87	1.06	28.9
All Vehicles		4751	9.7	0.968	67.7	LOS E	45.3	347.6	0.90	0.98	29.7

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	6	51.3	LOS E	0.0	0.0	0.84	0.84
P3	North Full Crossing	1	47.2	LOS E	0.0	0.0	0.81	0.81
P4	West Full Crossing	6	64.7	LOS F	0.0	0.0	0.95	0.95
All Pedestrians		13	57.2	LOS E			0.89	0.89

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.

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# MOVEMENT SUMMARY

 Site: AM Base 2017

New Site

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	56	5.4	0.053	15.2	LOS B	1.4	9.9	0.43	0.65	48.7
2	T1	609	3.1	0.991	120.0	LOS F	31.4	225.6	1.00	1.36	20.4
3	R2	214	11.7	0.976	116.1	LOS F	20.3	156.3	1.00	1.21	20.8
Approach		879	5.3	0.991	112.4	LOS F	31.4	225.6	0.96	1.28	21.3
East: Milperra Road											
4	L2	88	14.8	0.072	10.6	LOS A	1.4	10.9	0.29	0.65	53.4
5	T1	1070	11.8	0.789	52.2	LOS D	25.8	199.0	0.96	0.88	35.2
6	R2	251	11.2	0.988	126.7	LOS F	25.2	193.3	1.00	1.16	19.9
Approach		1409	11.9	0.988	62.9	LOS E	25.8	199.0	0.93	0.92	31.6
North: Edgar Street											
7	L2	195	13.8	0.224	23.4	LOS B	7.0	54.7	0.56	0.69	42.6
8	T1	276	6.9	0.756	49.6	LOS D	16.8	124.5	0.91	0.82	33.3
9	R2	403	8.2	0.793	44.5	LOS D	9.7	72.6	0.99	0.88	35.0
Approach		874	9.0	0.793	41.4	LOS C	16.8	124.5	0.87	0.82	35.8
West: Milperra Road											
10	L2	396	8.3	0.363	18.4	LOS B	12.1	90.5	0.52	0.73	48.1
11	T1	1240	11.4	0.992	119.5	LOS F	52.3	401.5	0.98	1.34	21.5
12	R2	87	8.0	0.339	65.0	LOS E	5.4	40.5	0.94	0.78	30.0
Approach		1723	10.5	0.992	93.5	LOS F	52.3	401.5	0.87	1.17	25.0
All Vehicles		4885	9.7	0.992	78.8	LOS F	52.3	401.5	0.91	1.05	27.3

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	6	50.6	LOS E	0.0	0.0	0.85	0.85
P3	North Full Crossing	1	46.4	LOS E	0.0	0.0	0.81	0.81
P4	West Full Crossing	6	63.2	LOS F	0.0	0.0	0.95	0.95
All Pedestrians		13	56.1	LOS E			0.89	0.89

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.

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# MOVEMENT SUMMARY

 Site: AM Base 2017 + DEV

New Site

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	56	5.4	0.050	12.7	LOS A	1.2	8.5	0.37	0.64	50.3
2	T1	609	3.1	0.992	121.0	LOS F	31.5	226.2	1.00	1.36	20.3
3	R2	214	11.7	0.976	116.1	LOS F	20.3	156.3	1.00	1.21	20.8
Approach		879	5.3	0.992	112.9	LOS F	31.5	226.2	0.96	1.28	21.2
East: Milperra Road											
4	L2	88	14.8	0.072	10.6	LOS A	1.4	10.9	0.29	0.65	53.4
5	T1	1077	12.2	0.797	52.8	LOS D	26.2	202.8	0.97	0.89	35.0
6	R2	251	11.2	0.988	126.7	LOS F	25.2	193.3	1.00	1.16	19.9
Approach		1416	12.1	0.988	63.3	LOS E	26.2	202.8	0.93	0.92	31.5
North: Edgar Street											
7	L2	410	8.0	0.456	27.9	LOS B	15.0	112.0	0.67	0.86	41.3
8	T1	276	6.9	0.907	71.2	LOS F	20.8	154.1	0.91	1.03	27.9
9	R2	195	13.8	0.345	37.8	LOS C	4.0	31.7	0.92	0.77	36.8
Approach		881	9.0	0.907	43.7	LOS D	20.8	154.1	0.80	0.89	35.0
West: Milperra Road											
10	L2	396	8.3	0.363	18.4	LOS B	12.1	90.4	0.52	0.73	48.1
11	T1	1244	11.7	0.997	124.0	LOS F	53.4	411.4	0.98	1.36	20.9
12	R2	87	8.0	0.339	65.0	LOS E	5.4	40.5	0.94	0.78	30.0
Approach		1727	10.7	0.997	96.8	LOS F	53.4	411.4	0.87	1.19	24.5
All Vehicles		4903	9.9	0.997	80.5	LOS F	53.4	411.4	0.89	1.07	26.9

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	6	50.6	LOS E	0.0	0.0	0.85	0.85
P3	North Full Crossing	1	46.4	LOS E	0.0	0.0	0.81	0.81
P4	West Full Crossing	6	63.2	LOS F	0.0	0.0	0.95	0.95
All Pedestrians		13	56.1	LOS E			0.89	0.89

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.

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# MOVEMENT SUMMARY

 Site: AM Base 2027

New Site

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	65	6.2	0.067	19.5	LOS B	1.9	14.1	0.51	0.67	45.9
2	T1	698	3.0	1.131	335.9	LOS F	64.2	461.2	1.00	2.11	9.3
3	R2	245	11.4	1.122	317.2	LOS F	42.2	324.2	1.00	1.77	9.8
Approach		1008	5.3	1.131	310.9	LOS F	64.2	461.2	0.97	1.94	10.0
East: Milperra Road											
4	L2	101	14.9	0.085	11.7	LOS A	1.8	14.4	0.32	0.66	52.6
5	T1	1228	11.8	0.930	76.9	LOS F	38.7	298.0	0.99	1.12	28.5
6	R2	288	11.1	1.133	337.7	LOS F	51.8	397.2	1.00	1.63	9.3
Approach		1617	11.9	1.133	119.3	LOS F	51.8	397.2	0.95	1.18	21.3
North: Edgar Street											
7	L2	223	13.9	0.259	24.6	LOS B	8.1	63.6	0.58	0.73	42.1
8	T1	316	6.6	0.849	58.1	LOS E	21.4	158.7	0.94	0.94	30.9
9	R2	463	8.2	0.980	93.9	LOS F	17.5	131.3	1.00	1.17	23.8
Approach		1002	9.0	0.980	67.2	LOS E	21.4	158.7	0.89	1.00	28.7
West: Milperra Road											
10	L2	455	8.4	0.427	21.0	LOS B	15.5	116.0	0.58	0.74	46.5
11	T1	1424	11.4	1.140	350.8	LOS F	106.5	818.3	1.00	2.21	9.2
12	R2	100	8.0	0.390	65.5	LOS E	6.3	46.9	0.95	0.78	29.9
Approach		1979	10.5	1.140	260.6	LOS F	106.5	818.3	0.90	1.80	11.7
All Vehicles		5606	9.7	1.140	194.3	LOS F	106.5	818.3	0.92	1.50	14.7

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	6	50.6	LOS E	0.0	0.0	0.85	0.85
P3	North Full Crossing	1	46.4	LOS E	0.0	0.0	0.81	0.81
P4	West Full Crossing	6	63.2	LOS F	0.0	0.0	0.95	0.95
All Pedestrians		13	56.1	LOS E			0.89	0.89

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.

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# MOVEMENT SUMMARY

 Site: AM Base 2027 + DEV

New Site

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	65	6.2	0.070	22.4	LOS B	2.1	15.5	0.55	0.68	44.3
2	T1	698	3.0	1.128	330.1	LOS F	63.7	457.7	1.00	2.09	9.5
3	R2	245	11.4	1.122	317.2	LOS F	42.2	324.2	1.00	1.77	9.8
Approach		1008	5.3	1.128	307.1	LOS F	63.7	457.7	0.97	1.92	10.1
East: Milperra Road											
4	L2	101	14.9	0.085	11.7	LOS A	1.8	14.4	0.32	0.66	52.6
5	T1	1236	12.1	0.937	80.1	LOS F	39.8	307.6	0.99	1.14	27.8
6	R2	288	11.1	1.133	337.7	LOS F	51.8	397.2	1.00	1.63	9.3
Approach		1625	12.1	1.133	121.5	LOS F	51.8	397.2	0.95	1.20	21.0
North: Edgar Street											
7	L2	223	13.9	0.259	24.6	LOS B	8.1	63.6	0.58	0.73	42.1
8	T1	316	6.6	0.849	58.1	LOS E	21.4	158.7	0.94	0.94	30.9
9	R2	470	8.1	1.000	124.9	LOS F	20.4	152.4	1.00	1.24	19.9
Approach		1009	8.9	1.000	81.8	LOS F	21.4	158.7	0.89	1.03	25.8
West: Milperra Road											
10	L2	455	8.4	0.427	21.0	LOS B	15.5	116.0	0.58	0.74	46.5
11	T1	1428	11.6	1.144	358.3	LOS F	108.2	832.9	1.00	2.23	9.0
12	R2	100	8.0	0.390	65.5	LOS E	6.3	46.9	0.95	0.78	29.9
Approach		1983	10.7	1.144	266.2	LOS F	108.2	832.9	0.90	1.82	11.5
All Vehicles		5625	9.8	1.144	198.7	LOS F	108.2	832.9	0.93	1.52	14.5

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	6	50.6	LOS E	0.0	0.0	0.85	0.85
P3	North Full Crossing	1	46.4	LOS E	0.0	0.0	0.81	0.81
P4	West Full Crossing	6	63.2	LOS F	0.0	0.0	0.95	0.95
All Pedestrians		13	56.1	LOS E			0.89	0.89

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.

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# MOVEMENT SUMMARY

 Site: PM Base 2015

New Site

Signals - Fixed Time Isolated Cycle Time = 115 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	96	3.1	0.097	15.7	LOS B	2.2	15.8	0.49	0.67	48.7
2	T1	355	3.7	0.662	51.4	LOS D	10.2	73.8	0.99	0.83	32.8
3	R2	198	3.5	0.972	98.4	LOS F	15.6	112.3	1.00	1.26	23.4
Approach		649	3.5	0.972	60.5	LOS E	15.6	112.3	0.92	0.94	30.5
East: Milperra Road											
4	L2	153	5.2	0.139	15.3	LOS B	3.4	24.9	0.47	0.69	50.2
5	T1	1104	6.5	0.849	51.5	LOS D	23.7	175.0	0.99	0.98	35.5
6	R2	244	7.0	0.948	87.2	LOS F	18.0	133.7	1.00	1.10	25.3
Approach		1501	6.5	0.948	53.6	LOS D	23.7	175.0	0.94	0.97	34.3
North: Edgar Street											
7	L2	218	7.8	0.229	17.9	LOS B	5.9	44.2	0.54	0.69	46.6
8	T1	413	1.0	0.997	112.3	LOS F	37.8	266.7	0.99	1.47	21.3
9	R2	509	4.9	0.849	42.4	LOS C	11.3	82.6	1.00	0.95	36.0
Approach		1140	4.0	0.997	63.0	LOS E	37.8	266.7	0.91	1.09	29.8
West: Milperra Road											
10	L2	357	3.9	0.276	12.8	LOS A	7.0	50.3	0.43	0.71	52.0
11	T1	1160	4.9	0.974	92.3	LOS F	38.3	279.2	0.99	1.29	25.5
12	R2	177	4.0	0.681	59.0	LOS E	9.8	71.2	1.00	0.84	31.6
Approach		1694	4.6	0.974	72.1	LOS F	38.3	279.2	0.87	1.12	29.2
All Vehicles		4984	4.9	0.997	62.9	LOS E	38.3	279.2	0.91	1.04	30.9

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	4	47.0	LOS E	0.0	0.0	0.90	0.90
P3	North Full Crossing	1	42.6	LOS E	0.0	0.0	0.86	0.86
P4	West Full Crossing	6	51.7	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		11	49.2	LOS E			0.92	0.92

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.

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# MOVEMENT SUMMARY

 Site: PM Base 2017

New Site

Signals - Fixed Time Isolated Cycle Time = 130 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	99	3.0	0.103	17.5	LOS B	2.6	18.9	0.50	0.68	47.6
2	T1	365	3.6	0.671	57.0	LOS E	12.1	87.1	0.99	0.83	31.2
3	R2	203	3.4	0.976	109.3	LOS F	17.9	128.9	1.00	1.23	21.9
Approach		667	3.4	0.976	67.1	LOS E	17.9	128.9	0.92	0.93	29.0
East: Milperra Road											
4	L2	157	5.1	0.143	16.4	LOS B	3.9	28.8	0.46	0.70	49.5
5	T1	1135	6.5	0.879	60.5	LOS E	29.6	218.9	0.98	1.01	32.7
6	R2	250	6.8	0.981	114.7	LOS F	22.9	169.9	1.00	1.16	21.3
Approach		1542	6.4	0.981	64.8	LOS E	29.6	218.9	0.93	1.00	31.1
North: Edgar Street											
7	L2	224	7.6	0.237	20.3	LOS B	7.1	52.8	0.54	0.69	45.2
8	T1	424	0.9	0.980	102.2	LOS F	38.9	274.8	0.98	1.34	22.6
9	R2	524	5.0	0.821	42.7	LOS D	12.4	90.6	0.99	0.91	35.9
Approach		1172	4.0	0.980	59.9	LOS E	38.9	274.8	0.90	1.02	30.6
West: Milperra Road											
10	L2	367	3.8	0.282	13.9	LOS A	8.3	59.7	0.44	0.71	51.3
11	T1	1193	4.9	0.989	112.0	LOS F	47.2	344.8	0.98	1.33	22.5
12	R2	182	3.8	0.707	66.2	LOS E	11.5	83.0	1.00	0.85	29.8
Approach		1742	4.6	0.989	86.6	LOS F	47.2	344.8	0.87	1.15	26.2
All Vehicles		5123	4.9	0.989	71.4	LOS F	47.2	344.8	0.90	1.05	28.9

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued per ped	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	4	50.0	LOS E	0.0	0.0	0.88	0.88
P3	North Full Crossing	1	45.7	LOS E	0.0	0.0	0.84	0.84
P4	West Full Crossing	6	59.2	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		11	54.6	LOS E			0.92	0.92

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.

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# MOVEMENT SUMMARY

 Site: PM Base 2017 + DEV

New Site

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	99	3.0	0.103	17.1	LOS B	2.5	17.8	0.51	0.68	47.9
2	T1	371	3.5	0.690	53.9	LOS D	11.4	82.0	0.99	0.84	32.1
3	R2	207	3.4	0.984	109.4	LOS F	17.7	127.3	1.00	1.28	21.9
Approach		677	3.4	0.984	65.5	LOS E	17.7	127.3	0.93	0.95	29.3
East: Milperra Road											
4	L2	157	5.1	0.155	20.1	LOS B	4.5	32.6	0.55	0.71	47.1
5	T1	1140	6.9	0.880	57.3	LOS E	27.4	202.9	0.99	1.02	33.6
6	R2	250	6.8	1.012	139.4	LOS F	24.8	183.8	1.00	1.28	18.6
Approach		1547	6.7	1.012	66.8	LOS E	27.4	202.9	0.95	1.03	30.5
North: Edgar Street											
7	L2	224	7.6	0.239	19.4	LOS B	6.6	49.1	0.55	0.69	45.7
8	T1	424	0.9	1.000	133.5	LOS F	42.5	299.8	1.00	1.49	19.0
9	R2	524	5.0	0.847	43.1	LOS D	12.0	87.8	1.00	0.95	35.7
Approach		1172	4.0	1.000	71.3	LOS F	42.5	299.8	0.91	1.09	28.0
West: Milperra Road											
10	L2	367	3.8	0.284	13.3	LOS A	7.6	55.2	0.44	0.71	51.7
11	T1	1197	5.3	0.993	110.8	LOS F	44.9	328.6	0.99	1.37	22.6
12	R2	182	3.8	0.730	63.2	LOS E	10.8	78.1	1.00	0.86	30.5
Approach		1746	4.8	0.993	85.4	LOS F	44.9	328.6	0.87	1.18	26.4
All Vehicles		5142	5.0	1.012	74.0	LOS F	44.9	328.6	0.91	1.08	28.3

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	4	47.7	LOS E	0.0	0.0	0.89	0.89
P3	North Full Crossing	1	43.4	LOS E	0.0	0.0	0.85	0.85
P4	West Full Crossing	6	54.2	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		11	50.8	LOS E			0.92	0.92

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.

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# MOVEMENT SUMMARY

 Site: PM Base 2027

New Site

Signals - Fixed Time Isolated Cycle Time = 140 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	114	3.5	0.131	23.5	LOS B	3.9	28.0	0.58	0.70	44.1
2	T1	419	3.6	0.816	67.5	LOS E	16.6	119.7	1.00	0.93	28.7
3	R2	233	3.4	1.131	331.4	LOS F	41.1	296.3	1.00	1.80	9.5
Approach		766	3.5	1.131	141.2	LOS F	41.1	296.3	0.94	1.16	18.3
East: Milperra Road											
4	L2	180	5.0	0.181	24.4	LOS B	6.4	46.5	0.57	0.71	44.7
5	T1	1303	6.5	1.000	126.2	LOS F	54.3	401.4	1.00	1.38	20.7
6	R2	288	6.9	1.102	284.5	LOS F	46.5	344.8	1.00	1.52	10.7
Approach		1771	6.4	1.102	141.6	LOS F	54.3	401.4	0.95	1.34	18.9
North: Edgar Street											
7	L2	257	7.8	0.276	23.3	LOS B	8.9	66.8	0.57	0.74	43.6
8	T1	488	1.0	1.119	317.9	LOS F	86.0	607.5	1.00	2.20	9.8
9	R2	601	5.0	0.918	61.2	LOS E	18.7	136.2	1.00	1.03	30.4
Approach		1346	4.1	1.119	147.0	LOS F	86.0	607.5	0.92	1.40	17.8
West: Milperra Road											
10	L2	422	4.0	0.370	15.9	LOS B	11.4	82.6	0.48	0.72	49.8
11	T1	1369	4.9	1.111	303.9	LOS F	95.6	696.9	1.00	2.00	10.4
12	R2	209	3.8	0.791	73.5	LOS F	14.7	106.4	1.00	0.89	28.1
Approach		2000	4.6	1.111	219.1	LOS F	95.6	696.9	0.89	1.61	13.5
All Vehicles		5883	4.9	1.131	169.1	LOS F	95.6	696.9	0.92	1.42	16.4

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	4	51.4	LOS E	0.0	0.0	0.86	0.86
P3	North Full Crossing	1	47.2	LOS E	0.0	0.0	0.82	0.82
P4	West Full Crossing	6	64.1	LOS F	0.0	0.0	0.96	0.96
All Pedestrians		11	58.0	LOS E			0.91	0.91

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.

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# MOVEMENT SUMMARY

 Site: PM Base 2027 + DEV

New Site

Signals - Fixed Time Isolated Cycle Time = 125 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	114	3.5	0.132	21.7	LOS B	3.5	25.1	0.59	0.70	45.1
2	T1	425	3.5	0.902	72.1	LOS F	16.5	119.3	1.00	1.07	27.7
3	R2	237	3.4	1.095	262.6	LOS F	34.9	251.6	1.00	1.74	11.5
Approach		776	3.5	1.095	122.8	LOS F	34.9	251.6	0.94	1.22	20.2
East: Milperra Road											
4	L2	180	5.0	0.179	21.9	LOS B	5.6	40.8	0.56	0.71	46.1
5	T1	1307	6.8	1.012	142.3	LOS F	52.3	387.8	1.00	1.48	19.0
6	R2	288	6.9	1.148	354.7	LOS F	51.8	384.4	1.00	1.77	8.9
Approach		1775	6.6	1.148	164.5	LOS F	52.3	387.8	0.96	1.45	16.9
North: Edgar Street											
7	L2	257	7.8	0.279	21.5	LOS B	8.1	60.7	0.57	0.72	44.6
8	T1	488	1.0	1.148	358.2	LOS F	89.9	634.7	1.00	2.47	8.8
9	R2	601	5.0	0.906	54.0	LOS D	16.5	120.4	1.00	1.02	32.3
Approach		1346	4.1	1.148	158.1	LOS F	89.9	634.7	0.92	1.49	16.9
West: Milperra Road											
10	L2	422	4.0	0.368	15.2	LOS B	10.3	74.3	0.49	0.72	50.3
11	T1	1374	5.2	1.126	319.2	LOS F	94.2	689.2	1.00	2.16	10.0
12	R2	209	3.8	0.824	69.7	LOS E	13.6	98.5	1.00	0.92	29.0
Approach		2005	4.8	1.126	229.2	LOS F	94.2	689.2	0.89	1.72	13.0
All Vehicles		5902	5.0	1.148	179.6	LOS F	94.2	689.2	0.92	1.52	15.7

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	4	48.4	LOS E	0.0	0.0	0.88	0.88
P3	North Full Crossing	1	44.1	LOS E	0.0	0.0	0.84	0.84
P4	West Full Crossing	6	56.7	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		11	52.5	LOS E			0.92	0.92

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.

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Project: N:\Projects\599\FY15\106\_Revesby Waste Facility EA\Des\_An\Traffic\Sidra\Edgar Milperra and Queen Street.sip6

# MOVEMENT SUMMARY

**STOP** Site: 2015 Base AM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles Distance veh m		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	170	0.6	0.503	5.6	LOS A	0.0	0.0	0.00	0.11	57.3
2	T1	791	2.0	0.503	0.1	LOS A	0.0	0.0	0.00	0.11	58.9
3	R2	25	0.0	0.014	6.3	LOS A	0.1	0.5	0.43	0.57	48.5
Approach		986	1.7	0.503	1.2	NA	0.1	0.5	0.01	0.12	58.3
East: Gordon Parker Street											
4	L2	50	2.0	0.035	5.5	LOS A	0.1	1.0	0.37	0.56	48.8
Approach		50	2.0	0.035	5.5	LOS A	0.1	1.0	0.37	0.56	48.8
North: Queen Street											
7	L2	15	13.3	0.190	5.7	LOS A	0.0	0.0	0.00	0.03	57.5
8	T1	338	6.8	0.190	0.0	LOS A	0.0	0.0	0.00	0.03	59.7
9	R2	57	24.6	0.096	12.1	LOS A	0.4	3.3	0.74	0.89	45.8
Approach		410	9.5	0.190	1.9	NA	0.4	3.3	0.10	0.15	57.2
West: Gordon Parker Street											
10	L2	66	28.8	0.177	17.4	LOS B	0.6	5.4	0.74	1.01	42.9
11	T1	2	0.0	0.729	164.3	LOS F	2.4	22.0	0.99	1.12	11.6
12	R2	20	40.0	0.729	253.1	LOS F	2.4	22.0	0.99	1.12	11.7
Approach		88	30.7	0.729	74.3	LOS F	2.4	22.0	0.81	1.04	25.7
All Vehicles		1534	5.5	0.729	5.7	NA	2.4	22.0	0.09	0.19	53.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base AM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	175	0.6	0.517	5.6	LOS A	0.0	0.0	0.00	0.11	57.3
2	T1	813	2.0	0.517	0.1	LOS A	0.0	0.0	0.00	0.11	58.9
3	R2	26	0.0	0.015	6.4	LOS A	0.1	0.5	0.43	0.57	48.5
Approach		1014	1.7	0.517	1.2	NA	0.1	0.5	0.01	0.12	58.3
East: Gordon Parker Street											
4	L2	54	1.9	0.039	5.5	LOS A	0.1	1.1	0.37	0.56	48.7
Approach		54	1.9	0.039	5.5	LOS A	0.1	1.1	0.37	0.56	48.7
North: Queen Street											
7	L2	15	13.3	0.195	5.7	LOS A	0.0	0.0	0.00	0.02	57.5
8	T1	348	6.9	0.195	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	58	24.1	0.103	12.5	LOS A	0.4	3.5	0.76	0.90	45.4
Approach		421	9.5	0.195	1.9	NA	0.4	3.5	0.10	0.14	57.2
West: Gordon Parker Street											
10	L2	68	29.4	0.194	18.3	LOS B	0.7	5.9	0.76	1.02	42.5
11	T1	2	0.0	0.848	253.2	LOS F	3.0	28.0	0.99	1.19	8.7
12	R2	20	40.0	0.848	357.6	LOS F	3.0	28.0	0.99	1.19	8.8
Approach		90	31.1	0.848	98.9	LOS F	3.0	28.0	0.82	1.06	21.9
All Vehicles		1579	5.4	0.848	7.1	NA	3.0	28.0	0.09	0.19	52.7

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base AM with DEV

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	184	0.5	0.522	5.6	LOS A	0.0	0.0	0.00	0.11	57.3
2	T1	813	2.0	0.522	0.1	LOS A	0.0	0.0	0.00	0.11	58.8
3	R2	26	0.0	0.015	6.4	LOS A	0.1	0.5	0.43	0.57	48.5
Approach		1023	1.7	0.522	1.2	NA	0.1	0.5	0.01	0.12	58.2
East: Gordon Parker Street											
4	L2	54	1.9	0.039	5.5	LOS A	0.1	1.1	0.37	0.56	48.7
Approach		54	1.9	0.039	5.5	LOS A	0.1	1.1	0.37	0.56	48.7
North: Queen Street											
7	L2	15	13.3	0.195	5.7	LOS A	0.0	0.0	0.00	0.02	57.5
8	T1	348	6.9	0.195	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	58	24.1	0.105	12.7	LOS A	0.4	3.6	0.76	0.90	45.6
Approach		421	9.5	0.195	2.0	NA	0.4	3.6	0.11	0.14	57.2
West: Gordon Parker Street											
10	L2	68	29.4	0.194	18.3	LOS B	0.7	5.9	0.76	1.02	42.5
11	T1	2	0.0	0.023	48.0	LOS D	0.1	0.5	0.92	1.00	30.5
12	R2	20	40.0	0.841	367.4	LOS F	2.9	27.6	1.00	1.17	8.4
Approach		90	31.1	0.841	96.5	LOS F	2.9	27.6	0.82	1.05	22.2
All Vehicles		1588	5.4	0.841	7.0	NA	2.9	27.6	0.09	0.20	52.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base AM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles Distance veh m		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	200	0.5	0.593	5.7	LOS A	0.0	0.0	0.00	0.10	57.2
2	T1	934	2.0	0.593	0.1	LOS A	0.0	0.0	0.00	0.10	58.8
3	R2	30	0.0	0.018	6.6	LOS A	0.1	0.6	0.46	0.59	48.4
Approach		1164	1.7	0.593	1.2	NA	0.1	0.6	0.01	0.12	58.2
East: Gordon Parker Street											
4	L2	62	1.6	0.047	5.7	LOS A	0.2	1.3	0.40	0.59	48.7
Approach		62	1.6	0.047	5.7	LOS A	0.2	1.3	0.40	0.59	48.7
North: Queen Street											
7	L2	17	11.8	0.224	5.7	LOS A	0.0	0.0	0.00	0.02	57.5
8	T1	399	6.8	0.224	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	68	25.0	0.174	16.1	LOS B	0.7	5.6	0.84	0.93	43.7
Approach		484	9.5	0.224	2.5	NA	0.7	5.6	0.12	0.15	56.7
West: Gordon Parker Street											
10	L2	77	28.6	0.295	24.0	LOS B	1.1	9.3	0.84	1.05	40.0
11	T1	2	0.0	0.042	79.0	LOS F	0.1	0.8	0.96	1.00	24.3
12	R2	23	39.1	2.180	2677.5	LOS F	21.1	197.4	1.00	1.98	1.3
Approach		102	30.4	2.180	623.4	LOS F	21.1	197.4	0.88	1.26	5.3
All Vehicles		1812	5.4	2.180	36.7	NA	21.1	197.4	0.10	0.21	36.9

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base AM with DEV

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	210	0.5	0.599	5.7	LOS A	0.0	0.0	0.00	0.11	57.2
2	T1	934	2.0	0.599	0.1	LOS A	0.0	0.0	0.00	0.11	58.8
3	R2	30	0.0	0.018	6.6	LOS A	0.1	0.6	0.46	0.59	48.4
Approach		1174	1.7	0.599	1.3	NA	0.1	0.6	0.01	0.12	58.2
East: Gordon Parker Street											
4	L2	62	1.6	0.047	5.7	LOS A	0.2	1.3	0.40	0.59	48.7
Approach		62	1.6	0.047	5.7	LOS A	0.2	1.3	0.40	0.59	48.7
North: Queen Street											
7	L2	17	11.8	0.224	5.7	LOS A	0.0	0.0	0.00	0.02	57.5
8	T1	399	6.8	0.224	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	68	25.0	0.179	16.5	LOS B	0.7	5.8	0.85	0.94	43.5
Approach		484	9.5	0.224	2.5	NA	0.7	5.8	0.12	0.15	56.7
West: Gordon Parker Street											
10	L2	77	28.6	0.295	24.0	LOS B	1.1	9.3	0.84	1.05	40.0
11	T1	2	0.0	0.042	80.2	LOS F	0.1	0.8	0.96	1.00	24.1
12	R2	25	36.0	2.251	2772.9	LOS F	23.1	211.7	1.00	2.04	1.3
Approach		104	29.8	2.251	685.9	LOS F	23.1	211.7	0.88	1.29	4.8
All Vehicles		1824	5.4	2.251	40.8	NA	23.1	211.7	0.10	0.21	35.5

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2015 Base PM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	26	0.0	0.243	5.6	LOS A	0.0	0.0	0.00	0.03	58.0
2	T1	440	2.0	0.243	0.0	LOS A	0.0	0.0	0.00	0.03	59.6
3	R2	31	0.0	0.027	7.9	LOS A	0.1	0.8	0.60	0.69	47.9
Approach		497	1.8	0.243	0.8	NA	0.1	0.8	0.04	0.07	58.7
East: Gordon Parker Street											
4	L2	93	0.0	0.095	7.0	LOS A	0.4	2.5	0.54	0.73	48.2
Approach		93	0.0	0.095	7.0	LOS A	0.4	2.5	0.54	0.73	48.2
North: Queen Street											
7	L2	24	0.0	0.372	5.6	LOS A	0.0	0.0	0.00	0.02	58.1
8	T1	692	1.9	0.372	0.0	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	32	28.1	0.025	7.6	LOS A	0.1	1.0	0.52	0.61	48.1
Approach		748	2.9	0.372	0.5	NA	0.1	1.0	0.02	0.05	59.1
West: Gordon Parker Street											
10	L2	165	9.1	0.184	9.9	LOS A	0.7	4.9	0.46	0.96	46.9
11	T1	7	0.0	1.440	876.5	LOS F	51.0	362.4	1.00	4.40	3.8
12	R2	112	1.8	1.440	894.2	LOS F	51.0	362.4	1.00	4.40	3.8
Approach		284	6.0	1.440	380.0	LOS F	51.0	362.4	0.68	2.40	8.2
All Vehicles		1622	3.0	1.440	67.4	NA	51.0	362.4	0.17	0.51	28.0

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base PM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h	
		Total veh/h	HV %				Vehicles veh	Distance m				
South: Queen Street												
1	L2	27	0.0	0.249	5.6	LOS A	0.0	0.0	0.00	0.03	58.0	
2	T1	452	2.0	0.249	0.0	LOS A	0.0	0.0	0.00	0.03	59.6	
3	R2	32	0.0	0.029	8.0	LOS A	0.1	0.9	0.61	0.70	47.8	
Approach		511	1.8	0.249	0.8	NA	0.1	0.9	0.04	0.08	58.6	
East: Gordon Parker Street												
4	L2	95	0.0	0.099	7.1	LOS A	0.4	2.6	0.55	0.75	48.1	
Approach		95	0.0	0.099	7.1	LOS A	0.4	2.6	0.55	0.75	48.1	
North: Queen Street												
7	L2	25	0.0	0.382	5.6	LOS A	0.0	0.0	0.00	0.02	58.1	
8	T1	711	1.8	0.382	0.1	LOS A	0.0	0.0	0.00	0.02	59.7	
9	R2	33	27.3	0.026	7.6	LOS A	0.1	1.1	0.53	0.62	48.1	
Approach		769	2.9	0.382	0.6	NA	0.1	1.1	0.02	0.05	59.0	
West: Gordon Parker Street												
10	L2	169	8.9	0.207	10.6	LOS A	0.8	6.3	0.53	0.96	46.6	
11	T1	7	0.0	1.621	1199.2	LOS F	64.2	455.4	1.00	4.85	2.8	
12	R2	115	1.7	1.621	1218.7	LOS F	64.2	455.4	1.00	4.85	2.8	
Approach		291	5.8	1.621	516.6	LOS F	64.2	455.4	0.73	2.59	6.3	
All Vehicles		1666	2.9	1.621	91.2	NA	64.2	455.4	0.18	0.54	23.7	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base PM with DEV

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Queen Street											
1	L2	27	0.0	0.249	5.6	LOS A	0.0	0.0	0.00	0.03	58.0
2	T1	452	2.0	0.249	0.0	LOS A	0.0	0.0	0.00	0.03	59.6
3	R2	32	0.0	0.029	8.0	LOS A	0.1	0.9	0.61	0.70	47.8
Approach		511	1.8	0.249	0.8	NA	0.1	0.9	0.04	0.08	58.6
East: Gordon Parker Street											
4	L2	95	0.0	0.172	9.6	LOS A	0.6	4.1	0.63	0.83	46.6
Approach		95	0.0	0.172	9.6	LOS A	0.6	4.1	0.63	0.83	46.6
North: Queen Street											
7	L2	25	0.0	0.382	5.6	LOS A	0.0	0.0	0.00	0.02	58.1
8	T1	711	1.8	0.382	0.1	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	33	27.3	0.026	7.6	LOS A	0.1	1.1	0.53	0.62	48.1
Approach		769	2.9	0.382	0.6	NA	0.1	1.1	0.02	0.05	59.0
West: Gordon Parker Street											
10	L2	180	8.3	0.220	10.6	LOS A	0.9	6.7	0.53	0.96	46.6
11	T1	8	0.0	1.735	1399.3	LOS F	75.3	534.0	1.00	5.24	2.5
12	R2	123	1.6	1.735	1418.6	LOS F	75.3	534.0	1.00	5.24	2.5
Approach		311	5.5	1.735	603.2	LOS F	75.3	534.0	0.73	2.77	5.4
All Vehicles		1686	2.8	1.735	112.3	NA	75.3	534.0	0.19	0.60	20.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base PM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	31	0.0	0.287	5.6	LOS A	0.0	0.0	0.00	0.03	58.0
2	T1	520	2.1	0.287	0.0	LOS A	0.0	0.0	0.00	0.03	59.6
3	R2	37	0.0	0.039	8.7	LOS A	0.2	1.2	0.65	0.76	47.4
Approach		588	1.9	0.287	0.9	NA	0.2	1.2	0.04	0.08	58.6
East: Gordon Parker Street											
4	L2	110	0.0	0.241	11.8	LOS A	0.9	6.0	0.72	0.89	45.4
Approach		110	0.0	0.241	11.8	LOS A	0.9	6.0	0.72	0.89	45.4
North: Queen Street											
7	L2	28	0.0	0.439	5.6	LOS A	0.0	0.0	0.00	0.02	58.1
8	T1	816	1.8	0.439	0.1	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	38	28.9	0.033	8.1	LOS A	0.2	1.4	0.57	0.65	48.0
Approach		882	2.9	0.439	0.6	NA	0.2	1.4	0.02	0.05	59.0
West: Gordon Parker Street											
10	L2	195	9.2	0.265	11.6	LOS A	1.1	8.6	0.58	1.02	46.1
11	T1	8	0.0	3.272	4184.4	LOS F	130.6	925.3	1.00	5.08	0.9
12	R2	132	1.5	3.272	4220.1	LOS F	130.6	925.3	1.00	5.08	0.9
Approach		335	6.0	3.272	1769.5	LOS F	130.6	925.3	0.76	2.71	2.0
All Vehicles		1915	3.0	3.272	310.8	NA	130.6	925.3	0.20	0.57	9.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base PM with DEV

New Site  
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows Total	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles	Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Queen Street											
1	L2	31	0.0	0.287	5.6	LOS A	0.0	0.0	0.00	0.03	58.0
2	T1	520	2.1	0.287	0.0	LOS A	0.0	0.0	0.00	0.03	59.6
3	R2	37	0.0	0.039	8.7	LOS A	0.2	1.2	0.65	0.76	47.4
Approach		588	1.9	0.287	0.9	NA	0.2	1.2	0.04	0.08	58.6
East: Gordon Parker Street											
4	L2	110	0.0	0.241	11.8	LOS A	0.9	6.0	0.72	0.89	45.4
Approach		110	0.0	0.241	11.8	LOS A	0.9	6.0	0.72	0.89	45.4
North: Queen Street											
7	L2	28	0.0	0.439	5.6	LOS A	0.0	0.0	0.00	0.02	58.1
8	T1	816	1.8	0.439	0.1	LOS A	0.0	0.0	0.00	0.02	59.7
9	R2	38	28.9	0.033	8.1	LOS A	0.2	1.4	0.57	0.65	48.0
Approach		882	2.9	0.439	0.6	NA	0.2	1.4	0.02	0.05	59.0
West: Gordon Parker Street											
10	L2	206	8.7	0.279	11.6	LOS A	1.2	9.2	0.58	1.02	46.1
11	T1	9	0.0	3.471	4541.1	LOS F	142.2	1006.6	1.00	5.19	0.8
12	R2	140	1.4	3.471	4576.6	LOS F	142.2	1006.6	1.00	5.19	0.8
Approach		355	5.6	3.471	1926.7	LOS F	142.2	1006.6	0.76	2.77	1.8
All Vehicles		1935	2.9	3.471	354.7	NA	142.2	1006.6	0.20	0.61	8.7

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2015 BASE AM**

New Site

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	186	11.8	0.214	17.0	LOS B	4.0	30.6	0.58	0.73	39.6
3	R2	163	18.4	0.803	48.7	LOS D	7.1	57.3	1.00	0.95	25.0
Approach		349	14.9	0.803	31.8	LOS C	7.1	57.3	0.78	0.83	31.1
<b>East: Milperra Rd</b>											
4	L2	276	10.1	0.751	34.0	LOS C	16.9	128.2	0.95	0.88	33.2
5	T1	1120	9.9	0.751	27.4	LOS B	17.4	132.0	0.95	0.87	45.5
Approach		1396	10.0	0.751	28.7	LOS C	17.4	132.0	0.95	0.87	43.4
<b>West: Milperra Rd</b>											
11	T1	1799	6.8	0.665	6.2	LOS A	18.5	137.0	0.58	0.53	62.5
12	R2	313	15.0	0.798	28.9	LOS C	8.9	70.1	1.00	0.91	34.7
Approach		2112	8.0	0.798	9.6	LOS A	18.5	137.0	0.64	0.59	58.1
All Vehicles		3857	9.4	0.803	18.5	LOS B	18.5	137.0	0.76	0.71	49.3

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	24.0	LOS C	0.0	0.0	0.78	0.78
P2	East Full Crossing	1	34.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	29.1	LOS C			0.85	0.85

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.

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## MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2017 BASE AM**

New Site

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

### Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	192	12.0	0.221	17.1	LOS B	4.1	31.7	0.58	0.73	39.6
3	R2	168	18.5	0.827	50.0	LOS D	7.4	60.2	1.00	0.98	24.7
Approach		360	15.0	0.827	32.5	LOS C	7.4	60.2	0.78	0.85	30.8
<b>East: Milperra Rd</b>											
4	L2	284	10.2	0.772	35.1	LOS C	17.8	135.2	0.96	0.90	32.7
5	T1	1151	9.9	0.772	28.4	LOS B	18.3	139.2	0.96	0.89	45.0
Approach		1435	10.0	0.772	29.8	LOS C	18.3	139.2	0.96	0.90	42.9
<b>West: Milperra Rd</b>											
11	T1	1849	6.8	0.683	6.4	LOS A	19.5	144.5	0.59	0.55	62.4
12	R2	321	15.0	0.818	30.1	LOS C	9.4	74.1	1.00	0.93	34.1
Approach		2170	8.0	0.818	9.9	LOS A	19.5	144.5	0.65	0.60	57.8
All Vehicles		3965	9.4	0.827	19.1	LOS B	19.5	144.5	0.77	0.73	48.9

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	24.0	LOS C	0.0	0.0	0.78	0.78
P2	East Full Crossing	1	34.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	29.1	LOS C			0.85	0.85

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.

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## MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2017 BASE AM with DEV**

New Site

Signals - Fixed Time Isolated Cycle Time = 85 seconds (Optimum Cycle Time - Minimum Delay)

### Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Marigold St											
1	L2	192	12.0	0.219	17.5	LOS B	4.3	33.3	0.58	0.73	39.3
3	R2	172	20.3	0.828	52.3	LOS D	8.0	66.0	1.00	0.98	23.9
Approach		364	15.9	0.828	33.9	LOS C	8.0	66.0	0.78	0.84	30.1
East: Milperra Rd											
4	L2	284	10.2	0.764	35.9	LOS C	18.5	141.1	0.95	0.89	32.3
5	T1	1152	10.0	0.764	29.3	LOS C	19.1	145.2	0.95	0.88	44.5
Approach		1436	10.0	0.764	30.6	LOS C	19.1	145.2	0.95	0.88	42.4
West: Milperra Rd											
11	T1	1849	6.8	0.679	6.6	LOS A	20.3	150.7	0.58	0.54	62.2
12	R2	330	16.1	0.814	30.7	LOS C	10.1	80.5	1.00	0.92	33.8
Approach		2179	8.2	0.814	10.2	LOS A	20.3	150.7	0.65	0.60	57.4
All Vehicles		3979	9.6	0.828	19.7	LOS B	20.3	150.7	0.77	0.72	48.4

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	24.9	LOS C	0.0	0.0	0.76	0.76
P2	East Full Crossing	1	36.7	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	30.8	LOS D			0.85	0.85

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.

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# MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2027 BASE AM**

New Site

Signals - Fixed Time Isolated Cycle Time = 75 seconds (Optimum Cycle Time - Minimum Delay)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Marigold St											
1	L2	220	11.8	0.250	16.3	LOS B	4.4	34.2	0.59	0.73	40.2
3	R2	192	18.2	0.888	52.4	LOS D	8.6	69.6	1.00	1.09	24.1
Approach		412	14.8	0.888	33.1	LOS C	8.6	69.6	0.78	0.90	30.6
East: Milperra Rd											
4	L2	326	10.1	0.863	40.5	LOS C	22.5	171.0	1.00	1.02	30.2
5	T1	1322	9.9	0.863	33.8	LOS C	23.1	175.8	1.00	1.04	42.2
Approach		1648	10.0	0.863	35.2	LOS C	23.1	175.8	1.00	1.03	40.1
West: Milperra Rd											
11	T1	2123	6.8	0.775	6.6	LOS A	23.9	177.0	0.67	0.63	62.1
12	R2	369	14.9	0.883	35.2	LOS C	11.9	93.9	1.00	1.01	31.6
Approach		2492	8.0	0.883	10.9	LOS A	23.9	177.0	0.72	0.68	56.9
All Vehicles		4552	9.3	0.888	21.7	LOS B	23.9	177.0	0.83	0.83	47.1

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	23.2	LOS C	0.0	0.0	0.79	0.79
P2	East Full Crossing	1	31.7	LOS D	0.0	0.0	0.92	0.92
All Pedestrians		2	27.5	LOS C			0.85	0.85

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.

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# MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2027 BASE AM with DEV**

New Site

Signals - Fixed Time Isolated Cycle Time = 80 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Marigold St											
1	L2	220	11.8	0.247	16.7	LOS B	4.7	36.0	0.58	0.73	39.9
3	R2	197	20.3	0.895	55.9	LOS D	9.5	77.9	1.00	1.10	23.0
Approach		417	15.8	0.895	35.2	LOS C	9.5	77.9	0.78	0.90	29.6
East: Milperra Rd											
4	L2	326	10.1	0.856	41.0	LOS C	23.3	177.5	0.99	1.00	30.0
5	T1	1323	10.0	0.856	34.4	LOS C	24.0	182.5	0.99	1.02	41.9
Approach		1649	10.0	0.856	35.7	LOS C	24.0	182.5	0.99	1.01	39.9
West: Milperra Rd											
11	T1	2123	6.8	0.771	6.8	LOS A	25.0	185.4	0.66	0.62	61.9
12	R2	376	16.0	0.875	35.1	LOS C	12.5	99.4	1.00	0.99	31.7
Approach		2499	8.2	0.875	11.1	LOS A	25.0	185.4	0.71	0.67	56.6
All Vehicles		4565	9.6	0.895	22.2	LOS B	25.0	185.4	0.82	0.82	46.8

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	24.0	LOS C	0.0	0.0	0.78	0.78
P2	East Full Crossing	1	34.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	29.1	LOS C			0.85	0.85

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.

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## MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2015 BASE PM**

New Site

Signals - Fixed Time Isolated Cycle Time = 90 seconds (Optimum Cycle Time - Minimum Delay)

### Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	210	5.2	0.267	22.5	LOS B	5.8	42.4	0.67	0.75	37.4
3	R2	218	5.5	0.740	47.5	LOS D	9.8	72.1	1.00	0.88	26.5
Approach		428	5.4	0.740	35.2	LOS C	9.8	72.1	0.84	0.82	30.9
<b>East: Milperra Rd</b>											
4	L2	111	16.2	0.744	30.7	LOS C	22.1	164.9	0.91	0.83	36.4
5	T1	1672	5.6	0.744	24.1	LOS B	22.6	165.7	0.91	0.82	47.7
Approach		1783	6.2	0.744	24.5	LOS B	22.6	165.7	0.91	0.82	47.1
<b>West: Milperra Rd</b>											
11	T1	1372	3.8	0.515	6.7	LOS A	14.0	100.8	0.51	0.46	62.0
12	R2	171	9.9	0.693	31.3	LOS C	5.2	39.8	1.00	0.84	33.5
Approach		1543	4.5	0.693	9.5	LOS A	14.0	100.8	0.56	0.50	58.5
All Vehicles		3754	5.4	0.744	19.5	LOS B	22.6	165.7	0.76	0.69	49.3

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	20.7	LOS C	0.0	0.0	0.68	0.68
P2	East Full Crossing	1	39.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	29.9	LOS C			0.81	0.81

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.

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# MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2017 BASE PM**

New Site

Signals - Fixed Time Isolated Cycle Time = 90 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	216	5.1	0.274	22.5	LOS B	6.0	43.7	0.67	0.75	37.3
3	R2	224	5.4	0.759	48.2	LOS D	10.2	74.8	1.00	0.90	26.3
Approach		440	5.2	0.759	35.6	LOS C	10.2	74.8	0.84	0.83	30.8
<b>East: Milperra Rd</b>											
4	L2	115	16.5	0.765	31.8	LOS C	23.5	175.1	0.92	0.85	35.7
5	T1	1719	5.6	0.765	25.2	LOS B	24.0	175.9	0.92	0.84	47.1
Approach		1834	6.3	0.765	25.6	LOS B	24.0	175.9	0.92	0.84	46.5
<b>West: Milperra Rd</b>											
11	T1	1410	3.8	0.529	6.8	LOS A	14.6	105.2	0.52	0.47	61.9
12	R2	175	9.7	0.709	31.6	LOS C	5.4	41.0	1.00	0.84	33.3
Approach		1585	4.4	0.709	9.6	LOS A	14.6	105.2	0.57	0.51	58.4
All Vehicles		3859	5.4	0.765	20.1	LOS B	24.0	175.9	0.77	0.71	48.8

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	20.7	LOS C	0.0	0.0	0.68	0.68
P2	East Full Crossing	1	39.2	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	29.9	LOS C			0.81	0.81

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.

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## MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2017 BASE PM with DEV**

New Site

Signals - Fixed Time Isolated Cycle Time = 85 seconds (Optimum Cycle Time - Minimum Delay)

### Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	217	5.1	0.274	21.5	LOS B	5.7	41.4	0.67	0.75	38.0
3	R2	229	7.4	0.797	47.9	LOS D	10.2	76.1	1.00	0.93	26.2
Approach		446	6.3	0.797	35.0	LOS C	10.2	76.1	0.84	0.84	30.9
<b>East: Milperra Rd</b>											
4	L2	115	16.5	0.785	32.5	LOS C	23.3	173.7	0.93	0.88	35.3
5	T1	1720	5.6	0.785	25.9	LOS B	23.8	174.5	0.93	0.88	46.6
Approach		1835	6.3	0.785	26.3	LOS B	23.8	174.5	0.93	0.88	46.0
<b>West: Milperra Rd</b>											
11	T1	1410	3.8	0.534	6.7	LOS A	14.1	101.5	0.53	0.48	62.0
12	R2	180	12.2	0.758	31.9	LOS C	5.5	42.3	1.00	0.87	33.2
Approach		1590	4.7	0.758	9.6	LOS A	14.1	101.5	0.58	0.52	58.4
All Vehicles		3871	5.7	0.797	20.4	LOS B	23.8	174.5	0.78	0.73	48.6

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	20.5	LOS C	0.0	0.0	0.69	0.69
P2	East Full Crossing	1	36.7	LOS D	0.0	0.0	0.93	0.93
All Pedestrians		2	28.6	LOS C			0.81	0.81

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.

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Project: N:\Projects\599\FY15\106\_Revesby Waste Facility EA\Des\_An\Traffic\Sidra\Marigold and Milperra.sip6

# MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2027 BASE PM**

New Site

Signals - Fixed Time Isolated Cycle Time = 115 seconds (Optimum Cycle Time - Minimum Delay)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	248	5.2	0.322	28.3	LOS B	9.1	66.3	0.70	0.77	34.0
3	R2	257	5.4	0.796	59.1	LOS E	14.9	109.4	1.00	0.91	23.3
Approach		505	5.3	0.796	44.0	LOS D	14.9	109.4	0.85	0.84	27.6
<b>East: Milperra Rd</b>											
4	L2	131	16.0	0.804	36.4	LOS C	34.1	254.0	0.93	0.86	33.3
5	T1	1973	5.6	0.804	29.7	LOS C	34.8	254.9	0.93	0.86	44.5
Approach		2104	6.2	0.804	30.1	LOS C	34.8	254.9	0.93	0.86	43.9
<b>West: Milperra Rd</b>											
11	T1	1619	3.8	0.596	8.7	LOS A	22.2	160.8	0.54	0.50	60.0
12	R2	202	9.9	0.800	41.1	LOS C	8.4	63.5	1.00	0.89	29.2
Approach		1821	4.4	0.800	12.3	LOS A	22.2	160.8	0.59	0.54	55.8
All Vehicles		4430	5.4	0.804	24.4	LOS B	34.8	254.9	0.78	0.73	46.0

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	21.9	LOS C	0.0	0.0	0.62	0.62
P2	East Full Crossing	1	51.7	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		2	36.8	LOS D			0.78	0.78

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.

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## MOVEMENT SUMMARY

 **Site: Milperra Rd and Marigold St 2027 BASE PM with DEV**

New Site

Signals - Fixed Time Isolated Cycle Time = 120 seconds (Optimum Cycle Time - Minimum Delay)

### Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold St</b>											
1	L2	249	5.2	0.318	28.7	LOS C	9.4	68.5	0.69	0.77	33.8
3	R2	262	7.3	0.818	62.6	LOS E	16.1	120.1	1.00	0.92	22.4
Approach		511	6.3	0.818	46.1	LOS D	16.1	120.1	0.85	0.85	26.8
<b>East: Milperra Rd</b>											
4	L2	131	16.0	0.809	37.9	LOS C	35.7	266.2	0.93	0.87	32.5
5	T1	1974	5.6	0.809	31.2	LOS C	36.4	267.2	0.93	0.86	43.6
Approach		2105	6.3	0.809	31.7	LOS C	36.4	267.2	0.93	0.86	43.1
<b>West: Milperra Rd</b>											
11	T1	1619	3.8	0.593	8.8	LOS A	22.9	165.4	0.54	0.49	59.9
12	R2	207	12.1	0.777	40.7	LOS C	8.7	67.2	1.00	0.87	29.4
Approach		1826	4.7	0.777	12.4	LOS A	22.9	165.4	0.59	0.54	55.7
All Vehicles		4442	5.6	0.818	25.4	LOS B	36.4	267.2	0.78	0.73	45.3

Level of Service (LOS) Method: Delay (RTA NSW).

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		Prop. Queued	Effective Stop Rate per ped
					Pedestrian ped	Distance m		
P1	South Full Crossing	1	22.8	LOS C	0.0	0.0	0.62	0.62
P2	East Full Crossing	1	54.2	LOS E	0.0	0.0	0.95	0.95
All Pedestrians		2	38.5	LOS D			0.78	0.78

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2015 Base AM

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
<b>South: Marigold Street</b>											
1	L2	10	10.0	0.194	6.6	LOS A	0.4	3.0	0.15	0.09	56.5
2	T1	330	4.8	0.194	0.2	LOS A	0.4	3.0	0.15	0.09	58.5
3	R2	49	4.1	0.194	6.7	LOS A	0.4	3.0	0.15	0.09	57.2
Approach		389	4.9	0.194	1.2	NA	0.4	3.0	0.15	0.09	58.3
<b>East: Carrington Street</b>											
4	L2	34	14.7	0.107	9.3	LOS A	0.3	2.7	0.35	0.95	50.0
5	T1	1	0.0	0.107	10.1	LOS A	0.3	2.7	0.35	0.95	50.5
6	R2	49	16.3	0.107	12.4	LOS A	0.3	2.7	0.35	0.95	50.3
Approach		84	15.5	0.107	11.1	LOS A	0.3	2.7	0.35	0.95	50.2
<b>North: Marigold Street</b>											
7	L2	134	14.2	0.167	5.8	LOS A	0.1	1.1	0.06	0.26	55.2
8	T1	169	13.0	0.167	0.1	LOS A	0.1	1.1	0.06	0.26	57.3
9	R2	13	7.7	0.167	6.8	LOS A	0.1	1.1	0.06	0.26	55.6
Approach		316	13.3	0.167	2.8	NA	0.1	1.1	0.06	0.26	56.3
<b>West: Green Street</b>											
10	L2	6	33.3	0.011	10.9	LOS A	0.0	0.3	0.43	0.88	49.6
11	T1	2	50.0	0.011	13.7	LOS A	0.0	0.3	0.43	0.88	49.0
12	R2	1	0.0	0.011	10.6	LOS A	0.0	0.3	0.43	0.88	51.2
Approach		9	33.3	0.011	11.5	LOS A	0.0	0.3	0.43	0.88	49.6
All Vehicles		798	9.6	0.194	3.0	NA	0.4	3.0	0.14	0.25	56.4

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base AM

New Site  
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Marigold Street												
1	L2	10	10.0	0.198	6.5	LOS A	0.4	3.0	0.14	0.09	56.5	
2	T1	339	4.7	0.198	0.2	LOS A	0.4	3.0	0.14	0.09	58.6	
3	R2	50	4.0	0.198	6.6	LOS A	0.4	3.0	0.14	0.09	57.3	
Approach		399	4.8	0.198	1.1	NA	0.4	3.0	0.14	0.09	58.4	
East: Carrington Street												
4	L2	30	16.7	0.092	9.3	LOS A	0.3	2.4	0.33	0.95	49.9	
5	T1	1	0.0	0.092	10.1	LOS A	0.3	2.4	0.33	0.95	50.6	
6	R2	42	19.0	0.092	12.5	LOS A	0.3	2.4	0.33	0.95	50.2	
Approach		73	17.8	0.092	11.2	LOS A	0.3	2.4	0.33	0.95	50.1	
North: Marigold Street												
7	L2	118	16.9	0.151	5.9	LOS A	0.1	1.1	0.07	0.25	55.1	
8	T1	151	15.2	0.151	0.1	LOS A	0.1	1.1	0.07	0.25	57.3	
9	R2	12	8.3	0.151	6.8	LOS A	0.1	1.1	0.07	0.25	55.6	
Approach		281	15.7	0.151	2.8	NA	0.1	1.1	0.07	0.25	56.3	
West: Green Street												
10	L2	6	33.3	0.011	11.0	LOS A	0.0	0.3	0.43	0.88	49.6	
11	T1	2	50.0	0.011	13.6	LOS A	0.0	0.3	0.43	0.88	49.0	
12	R2	1	0.0	0.011	10.6	LOS A	0.0	0.3	0.43	0.88	51.2	
Approach		9	33.3	0.011	11.5	LOS A	0.0	0.3	0.43	0.88	49.7	
All Vehicles		762	10.4	0.198	2.8	NA	0.4	3.0	0.13	0.24	56.6	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2017 Base AM with DEV

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold Street</b>											
1	L2	10	10.0	0.201	6.7	LOS A	0.5	3.3	0.16	0.09	56.4
2	T1	339	4.7	0.201	0.2	LOS A	0.5	3.3	0.16	0.09	58.5
3	R2	53	3.8	0.201	6.8	LOS A	0.5	3.3	0.16	0.09	57.1
Approach		402	4.7	0.201	1.3	NA	0.5	3.3	0.16	0.09	58.2
<b>East: Carrington Street</b>											
4	L2	35	14.3	0.126	9.3	LOS A	0.4	3.3	0.37	0.95	49.8
5	T1	1	0.0	0.126	10.3	LOS A	0.4	3.3	0.37	0.95	50.3
6	R2	55	23.6	0.126	13.3	LOS A	0.4	3.3	0.37	0.95	49.8
Approach		91	19.8	0.126	11.7	LOS A	0.4	3.3	0.37	0.95	49.8
<b>North: Marigold Street</b>											
7	L2	146	16.4	0.177	5.8	LOS A	0.1	1.2	0.06	0.26	55.1
8	T1	174	13.2	0.177	0.1	LOS A	0.1	1.2	0.06	0.26	57.3
9	R2	13	7.7	0.177	6.9	LOS A	0.1	1.2	0.06	0.26	55.6
Approach		333	14.4	0.177	2.9	NA	0.1	1.2	0.06	0.26	56.2
<b>West: Green Street</b>											
10	L2	6	33.3	0.011	11.0	LOS A	0.0	0.3	0.43	0.88	49.6
11	T1	2	50.0	0.011	14.0	LOS A	0.0	0.3	0.43	0.88	48.9
12	R2	1	0.0	0.011	10.8	LOS A	0.0	0.3	0.43	0.88	51.1
Approach		9	33.3	0.011	11.6	LOS A	0.0	0.3	0.43	0.88	49.6
All Vehicles		835	10.5	0.201	3.2	NA	0.5	3.3	0.15	0.26	56.3

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base AM

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
<b>South: Marigold Street</b>											
1	L2	12	8.3	0.231	6.9	LOS A	0.5	3.8	0.17	0.09	56.5
2	T1	390	4.9	0.231	0.3	LOS A	0.5	3.8	0.17	0.09	58.5
3	R2	57	3.5	0.231	7.0	LOS A	0.5	3.8	0.17	0.09	57.2
Approach		459	4.8	0.231	1.3	NA	0.5	3.8	0.17	0.09	58.2
<b>East: Carrington Street</b>											
4	L2	40	15.0	0.139	9.5	LOS A	0.4	3.6	0.39	0.95	49.6
5	T1	1	0.0	0.139	10.8	LOS A	0.4	3.6	0.39	0.95	50.2
6	R2	57	15.8	0.139	13.5	LOS A	0.4	3.6	0.39	0.95	49.9
Approach		98	15.3	0.139	11.8	LOS A	0.4	3.6	0.39	0.95	49.8
<b>North: Marigold Street</b>											
7	L2	158	13.9	0.197	5.9	LOS A	0.2	1.4	0.07	0.26	55.2
8	T1	199	13.1	0.197	0.1	LOS A	0.2	1.4	0.07	0.26	57.3
9	R2	15	6.7	0.197	7.1	LOS A	0.2	1.4	0.07	0.26	55.7
Approach		372	13.2	0.197	2.8	NA	0.2	1.4	0.07	0.26	56.3
<b>West: Green Street</b>											
10	L2	7	28.6	0.013	11.0	LOS A	0.0	0.4	0.47	0.88	49.5
11	T1	2	50.0	0.013	14.9	LOS B	0.0	0.4	0.47	0.88	48.8
12	R2	1	0.0	0.013	11.3	LOS A	0.0	0.4	0.47	0.88	50.9
Approach		10	30.0	0.013	11.8	LOS A	0.0	0.4	0.47	0.88	49.5
All Vehicles		939	9.5	0.231	3.1	NA	0.5	3.8	0.16	0.25	56.4

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base AM + DEV

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Marigold Street											
1	L2	12	8.3	0.233	6.9	LOS A	0.6	4.0	0.18	0.09	56.4
2	T1	390	4.9	0.233	0.3	LOS A	0.6	4.0	0.18	0.09	58.4
3	R2	60	3.3	0.233	7.0	LOS A	0.6	4.0	0.18	0.09	57.1
Approach		462	4.8	0.233	1.3	NA	0.6	4.0	0.18	0.09	58.2
East: Carrington Street											
4	L2	40	15.0	0.156	9.5	LOS A	0.5	4.1	0.41	0.95	49.4
5	T1	1	0.0	0.156	10.9	LOS A	0.5	4.1	0.41	0.95	49.9
6	R2	62	22.6	0.156	14.2	LOS A	0.5	4.1	0.41	0.95	49.4
Approach		103	19.4	0.156	12.3	LOS A	0.5	4.1	0.41	0.95	49.4
North: Marigold Street											
7	L2	167	16.2	0.203	5.9	LOS A	0.2	1.5	0.07	0.26	55.0
8	T1	199	13.1	0.203	0.1	LOS A	0.2	1.5	0.07	0.26	57.3
9	R2	15	6.7	0.203	7.1	LOS A	0.2	1.5	0.07	0.26	55.6
Approach		381	14.2	0.203	2.9	NA	0.2	1.5	0.07	0.26	56.2
West: Green Street											
10	L2	7	28.6	0.013	11.0	LOS A	0.0	0.4	0.47	0.88	49.5
11	T1	2	50.0	0.013	15.1	LOS B	0.0	0.4	0.47	0.88	48.7
12	R2	1	0.0	0.013	11.3	LOS A	0.0	0.4	0.47	0.88	50.9
Approach		10	30.0	0.013	11.9	LOS A	0.0	0.4	0.47	0.88	49.5
All Vehicles		956	10.4	0.233	3.3	NA	0.6	4.1	0.16	0.26	56.2

Level of Service (LOS) Method: Delay (RTA NSW).

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.

# MOVEMENT SUMMARY

**STOP** Site: 2015 Base PM

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued v/c	Effective Stop Rate per veh	Average Speed km/h
<b>South: Marigold Street</b>											
1	L2	1	0.0	0.084	6.5	LOS A	0.2	1.3	0.15	0.09	57.0
2	T1	142	3.5	0.084	0.2	LOS A	0.2	1.3	0.15	0.09	58.6
3	R2	24	8.3	0.084	6.6	LOS A	0.2	1.3	0.15	0.09	57.0
Approach		167	4.2	0.084	1.2	NA	0.2	1.3	0.15	0.09	58.3
<b>East: Carrington Street</b>											
4	L2	49	0.0	0.091	8.9	LOS A	0.3	2.3	0.36	0.91	51.2
5	T1	1	0.0	0.091	9.4	LOS A	0.3	2.3	0.36	0.91	51.2
6	R2	41	14.6	0.091	11.1	LOS A	0.3	2.3	0.36	0.91	51.0
Approach		91	6.6	0.091	9.9	LOS A	0.3	2.3	0.36	0.91	51.1
<b>North: Marigold Street</b>											
7	L2	53	28.3	0.159	5.9	LOS A	0.0	0.2	0.01	0.10	56.2
8	T1	258	5.4	0.159	0.0	LOS A	0.0	0.2	0.01	0.10	59.2
9	R2	3	0.0	0.159	5.9	LOS A	0.0	0.2	0.01	0.10	57.8
Approach		314	9.2	0.159	1.1	NA	0.0	0.2	0.01	0.10	58.7
<b>West: Green Street</b>											
10	L2	8	0.0	0.020	8.4	LOS A	0.1	0.4	0.27	0.90	51.2
11	T1	3	0.0	0.020	9.3	LOS A	0.1	0.4	0.27	0.90	51.2
12	R2	10	0.0	0.020	10.0	LOS A	0.1	0.4	0.27	0.90	51.6
Approach		21	0.0	0.020	9.3	LOS A	0.1	0.4	0.27	0.90	51.4
All Vehicles		593	7.1	0.159	2.7	NA	0.3	2.3	0.11	0.25	57.0

Level of Service (LOS) Method: Delay (RTA NSW).

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.

# MOVEMENT SUMMARY

**STOP** Site: 2017 Base PM

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
<b>South: Marigold Street</b>											
1	L2	1	0.0	0.086	6.5	LOS A	0.2	1.4	0.15	0.09	57.0
2	T1	146	3.4	0.086	0.2	LOS A	0.2	1.4	0.15	0.09	58.5
3	R2	25	8.0	0.086	6.7	LOS A	0.2	1.4	0.15	0.09	57.0
Approach		172	4.1	0.086	1.2	NA	0.2	1.4	0.15	0.09	58.3
<b>East: Carrington Street</b>											
4	L2	50	0.0	0.130	9.2	LOS A	0.5	3.5	0.44	0.92	50.4
5	T1	1	0.0	0.130	11.1	LOS A	0.5	3.5	0.44	0.92	50.4
6	R2	42	14.3	0.130	13.6	LOS A	0.5	3.5	0.44	0.92	50.2
Approach		93	6.5	0.130	11.2	LOS A	0.5	3.5	0.44	0.92	50.3
<b>North: Marigold Street</b>											
7	L2	54	27.8	0.163	5.9	LOS A	0.0	0.2	0.01	0.10	56.3
8	T1	265	5.3	0.163	0.0	LOS A	0.0	0.2	0.01	0.10	59.2
9	R2	3	0.0	0.163	6.0	LOS A	0.0	0.2	0.01	0.10	57.8
Approach		322	9.0	0.163	1.0	NA	0.0	0.2	0.01	0.10	58.7
<b>West: Green Street</b>											
10	L2	8	0.0	0.021	8.4	LOS A	0.1	0.4	0.27	0.90	51.2
11	T1	3	0.0	0.021	9.4	LOS A	0.1	0.4	0.27	0.90	51.2
12	R2	10	0.0	0.021	10.1	LOS A	0.1	0.4	0.27	0.90	51.6
Approach		21	0.0	0.021	9.3	LOS A	0.1	0.4	0.27	0.90	51.4
All Vehicles		608	6.9	0.163	2.9	NA	0.5	3.5	0.12	0.25	56.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

# MOVEMENT SUMMARY

**STOP** Site: 2017 Base PM with DEV

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
<b>South: Marigold Street</b>											
1	L2	1	0.0	0.086	6.5	LOS A	0.2	1.4	0.15	0.09	57.0
2	T1	146	3.4	0.086	0.2	LOS A	0.2	1.4	0.15	0.09	58.5
3	R2	25	8.0	0.086	6.7	LOS A	0.2	1.4	0.15	0.09	57.0
Approach		172	4.1	0.086	1.2	NA	0.2	1.4	0.15	0.09	58.3
<b>East: Carrington Street</b>											
4	L2	52	0.0	0.108	8.9	LOS A	0.4	2.8	0.38	0.92	51.1
5	T1	1	0.0	0.108	9.4	LOS A	0.4	2.8	0.38	0.92	51.1
6	R2	48	22.9	0.108	11.8	LOS A	0.4	2.8	0.38	0.92	50.5
Approach		101	10.9	0.108	10.3	LOS A	0.4	2.8	0.38	0.92	50.8
<b>North: Marigold Street</b>											
7	L2	59	33.9	0.167	5.9	LOS A	0.0	0.2	0.01	0.11	56.0
8	T1	265	5.3	0.167	0.0	LOS A	0.0	0.2	0.01	0.11	59.2
9	R2	3	0.0	0.167	6.0	LOS A	0.0	0.2	0.01	0.11	57.8
Approach		327	10.4	0.167	1.1	NA	0.0	0.2	0.01	0.11	58.6
<b>West: Green Street</b>											
10	L2	8	0.0	0.021	8.4	LOS A	0.1	0.4	0.27	0.90	51.2
11	T1	3	0.0	0.021	9.4	LOS A	0.1	0.4	0.27	0.90	51.2
12	R2	10	0.0	0.021	10.1	LOS A	0.1	0.4	0.27	0.90	51.5
Approach		21	0.0	0.021	9.4	LOS A	0.1	0.4	0.27	0.90	51.4
All Vehicles		621	8.4	0.167	2.9	NA	0.4	2.8	0.12	0.26	56.8

Level of Service (LOS) Method: Delay (RTA NSW).

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.

# MOVEMENT SUMMARY

**STOP** Site: 2027 Base PM

New Site  
Stop (Two-Way)

## Movement Performance - Vehicles

Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued per veh	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
<b>South: Marigold Street</b>											
1	L2	1	0.0	0.100	6.7	LOS A	0.2	1.6	0.16	0.09	57.0
2	T1	168	3.6	0.100	0.3	LOS A	0.2	1.6	0.16	0.09	58.5
3	R2	28	7.1	0.100	6.9	LOS A	0.2	1.6	0.16	0.09	57.0
Approach		197	4.1	0.100	1.2	NA	0.2	1.6	0.16	0.09	58.3
<b>East: Carrington Street</b>											
4	L2	58	0.0	0.164	9.5	LOS A	0.6	4.4	0.49	0.93	50.0
5	T1	1	0.0	0.164	11.9	LOS A	0.6	4.4	0.49	0.93	50.0
6	R2	48	14.6	0.164	14.8	LOS B	0.6	4.4	0.49	0.93	49.8
Approach		107	6.5	0.164	11.9	LOS A	0.6	4.4	0.49	0.93	49.9
<b>North: Marigold Street</b>											
7	L2	63	28.6	0.188	5.9	LOS A	0.0	0.3	0.01	0.10	56.2
8	T1	305	5.6	0.188	0.0	LOS A	0.0	0.3	0.01	0.10	59.2
9	R2	4	0.0	0.188	6.0	LOS A	0.0	0.3	0.01	0.10	57.8
Approach		372	9.4	0.188	1.1	NA	0.0	0.3	0.01	0.10	58.6
<b>West: Green Street</b>											
10	L2	9	0.0	0.026	8.5	LOS A	0.1	0.6	0.30	0.90	51.1
11	T1	4	0.0	0.026	9.7	LOS A	0.1	0.6	0.30	0.90	51.1
12	R2	12	0.0	0.026	10.4	LOS A	0.1	0.6	0.30	0.90	51.4
Approach		25	0.0	0.026	9.6	LOS A	0.1	0.6	0.30	0.90	51.2
All Vehicles		701	7.1	0.188	3.1	NA	0.6	4.4	0.14	0.25	56.7

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

**STOP** Site: 2027 Base PM with DEV

New Site  
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Marigold Street												
1	L2	1	0.0	0.100	6.7	LOS A	0.2	1.6	0.17	0.09	57.0	
2	T1	168	3.6	0.100	0.3	LOS A	0.2	1.6	0.17	0.09	58.5	
3	R2	28	7.1	0.100	6.9	LOS A	0.2	1.6	0.17	0.09	57.0	
Approach		197	4.1	0.100	1.3	NA	0.2	1.6	0.17	0.09	58.3	
East: Carrington Street												
4	L2	60	0.0	0.189	9.5	LOS A	0.7	5.3	0.51	0.94	49.7	
5	T1	1	0.0	0.189	12.0	LOS A	0.7	5.3	0.51	0.94	49.7	
6	R2	55	21.8	0.189	15.8	LOS B	0.7	5.3	0.51	0.94	49.3	
Approach		116	10.3	0.189	12.5	LOS A	0.7	5.3	0.51	0.94	49.5	
North: Marigold Street												
7	L2	67	32.8	0.192	5.9	LOS A	0.0	0.3	0.01	0.11	56.0	
8	T1	305	5.6	0.192	0.0	LOS A	0.0	0.3	0.01	0.11	59.2	
9	R2	4	0.0	0.192	6.0	LOS A	0.0	0.3	0.01	0.11	57.8	
Approach		376	10.4	0.192	1.1	NA	0.0	0.3	0.01	0.11	58.6	
West: Green Street												
10	L2	9	0.0	0.026	8.5	LOS A	0.1	0.6	0.30	0.90	51.1	
11	T1	4	0.0	0.026	9.7	LOS A	0.1	0.6	0.30	0.90	51.1	
12	R2	12	0.0	0.026	10.5	LOS A	0.1	0.6	0.30	0.90	51.4	
Approach		25	0.0	0.026	9.6	LOS A	0.1	0.6	0.30	0.90	51.2	
All Vehicles		714	8.3	0.192	3.3	NA	0.7	5.3	0.14	0.27	56.5	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

## MOVEMENT SUMMARY

▽ Site: 2015 Base AM

Violet Street and Milperra Road  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	23	21.7	0.014	6.8	LOS A	0.1	0.5	0.43	0.57	49.9	
Approach		23	21.7	0.014	6.8	LOS A	0.1	0.5	0.43	0.57	49.9	
East: Milperra Road												
4	L2	50	22.0	0.256	6.7	LOS A	0.0	0.0	0.00	0.07	58.6	
5	T1	1348	10.4	0.256	0.0	LOS A	0.0	0.0	0.00	0.02	69.7	
Approach		1398	10.8	0.256	0.3	NA	0.0	0.0	0.00	0.02	69.2	
All Vehicles		1421	11.0	0.256	0.4	NA	0.1	0.5	0.01	0.03	68.8	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2017 Base AM

New Site  
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	24	20.8	0.015	6.8	LOS A	0.1	0.6	0.44	0.57	50.1	
Approach		24	20.8	0.015	6.8	LOS A	0.1	0.6	0.44	0.57	50.1	
East: Milperra Road												
4	L2	51	21.6	0.263	6.7	LOS A	0.0	0.0	0.00	0.07	58.8	
5	T1	1386	10.4	0.263	0.0	LOS A	0.0	0.0	0.00	0.02	69.7	
Approach		1437	10.8	0.263	0.3	NA	0.0	0.0	0.00	0.02	69.2	
All Vehicles		1461	11.0	0.263	0.4	NA	0.1	0.6	0.01	0.03	68.8	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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## MOVEMENT SUMMARY

▽ Site: 2017 Base AM with DEV

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	29	34.5	0.019	7.1	LOS A	0.1	0.8	0.45	0.58	47.3	
Approach		29	34.5	0.019	7.1	LOS A	0.1	0.8	0.45	0.58	47.3	
East: Milperra Road												
4	L2	65	24.6	0.267	6.7	LOS A	0.0	0.0	0.00	0.08	57.8	
5	T1	1386	10.4	0.267	0.0	LOS A	0.0	0.0	0.00	0.03	69.6	
Approach		1451	11.0	0.267	0.3	NA	0.0	0.0	0.00	0.03	69.0	
All Vehicles		1480	11.5	0.267	0.5	NA	0.1	0.8	0.01	0.04	68.4	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2027 Base AM

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	27	22.2	0.018	7.0	LOS A	0.1	0.7	0.47	0.60	49.7	
Approach		27	22.2	0.018	7.0	LOS A	0.1	0.7	0.47	0.60	49.7	
East: Milperra Road												
4	L2	59	22.0	0.303	6.7	LOS A	0.0	0.0	0.00	0.07	58.6	
5	T1	1591	10.4	0.303	0.0	LOS A	0.0	0.0	0.00	0.02	69.7	
Approach		1650	10.8	0.303	0.3	NA	0.0	0.0	0.00	0.02	69.2	
All Vehicles		1677	11.0	0.303	0.4	NA	0.1	0.7	0.01	0.03	68.7	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2027 Base AM with DEV

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	31	32.3	0.022	7.3	LOS A	0.1	0.9	0.48	0.60	47.6	
Approach		31	32.3	0.022	7.3	LOS A	0.1	0.9	0.48	0.60	47.6	
East: Milperra Road												
4	L2	72	23.6	0.305	6.7	LOS A	0.0	0.0	0.00	0.08	58.0	
5	T1	1591	10.4	0.305	0.0	LOS A	0.0	0.0	0.00	0.02	69.6	
Approach		1663	10.9	0.305	0.3	NA	0.0	0.0	0.00	0.03	69.0	
All Vehicles		1694	11.3	0.305	0.5	NA	0.1	0.9	0.01	0.04	68.4	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2015 Base PM

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h
		veh/h	%	v/c			veh	m			
South: Violet Street											
1	L2	38	0.0	0.023	6.7	LOS A	0.1	0.7	0.48	0.61	54.8
Approach		38	0.0	0.023	6.7	LOS A	0.1	0.7	0.48	0.61	54.8
East: Milperra Road											
4	L2	25	24.0	0.313	6.7	LOS A	0.0	0.0	0.00	0.03	58.4
5	T1	1733	6.1	0.313	0.0	LOS A	0.0	0.0	0.00	0.01	69.8
Approach		1758	6.3	0.313	0.1	NA	0.0	0.0	0.00	0.01	69.6
All Vehicles		1796	6.2	0.313	0.3	NA	0.1	0.7	0.01	0.02	69.2

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2017 Base PM

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h
		veh/h	%	v/c			veh	m			
South: Violet Street											
1	L2	39	0.0	0.024	6.8	LOS A	0.1	0.7	0.49	0.62	54.7
Approach		39	0.0	0.024	6.8	LOS A	0.1	0.7	0.49	0.62	54.7
East: Milperra Road											
4	L2	26	23.1	0.322	6.7	LOS A	0.0	0.0	0.00	0.03	58.7
5	T1	1782	6.1	0.322	0.0	LOS A	0.0	0.0	0.00	0.01	69.8
Approach		1808	6.3	0.322	0.1	NA	0.0	0.0	0.00	0.01	69.6
All Vehicles		1847	6.2	0.322	0.3	NA	0.1	0.7	0.01	0.02	69.2

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

▽ Site: 2017 Base PM with DEV

New Site  
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	47	10.6	0.031	7.0	LOS A	0.1	1.1	0.50	0.63	52.1	
Approach		47	10.6	0.031	7.0	LOS A	0.1	1.1	0.50	0.63	52.1	
East: Milperra Road												
4	L2	31	35.5	0.324	6.9	LOS A	0.0	0.0	0.00	0.03	55.2	
5	T1	1782	6.1	0.324	0.0	LOS A	0.0	0.0	0.00	0.01	69.8	
Approach		1813	6.6	0.324	0.2	NA	0.0	0.0	0.00	0.01	69.5	
All Vehicles		1860	6.7	0.324	0.3	NA	0.1	1.1	0.01	0.03	68.9	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

Site: 2027 Base PM

New Site  
 Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	ODMo v	Demand Flows		Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
		Total veh/h	HV %				Vehicles veh	Distance m			
South: Violet Street											
1	L2	45	0.0	0.030	7.1	LOS A	0.1	0.9	0.52	0.65	54.6
Approach		45	0.0	0.030	7.1	LOS A	0.1	0.9	0.52	0.65	54.6
East: Milperra Road											
4	L2	29	24.1	0.369	6.7	LOS A	0.0	0.0	0.00	0.03	58.3
5	T1	2045	6.1	0.369	0.1	LOS A	0.0	0.0	0.00	0.01	69.8
Approach		2074	6.3	0.369	0.1	NA	0.0	0.0	0.00	0.01	69.6
All Vehicles		2119	6.2	0.369	0.3	NA	0.1	0.9	0.01	0.02	69.2

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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# MOVEMENT SUMMARY

Site: 2027 Base PM with DEV

New Site  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	ODMo	Demand Flows		Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed	
	v	Total	HV		sec		Vehicles	Distance		per veh	km/h	
		veh/h	%	v/c			veh	m				
South: Violet Street												
1	L2	53	9.4	0.038	7.3	LOS A	0.2	1.3	0.54	0.66	52.3	
Approach		53	9.4	0.038	7.3	LOS A	0.2	1.3	0.54	0.66	52.3	
East: Milperra Road												
4	L2	33	36.4	0.371	6.9	LOS A	0.0	0.0	0.00	0.03	55.0	
5	T1	2045	6.1	0.371	0.1	LOS A	0.0	0.0	0.00	0.01	69.8	
Approach		2078	6.5	0.371	0.2	NA	0.0	0.0	0.00	0.01	69.5	
All Vehicles		2131	6.6	0.371	0.3	NA	0.2	1.3	0.01	0.03	68.9	

Level of Service (LOS) Method: Delay (RTA NSW).

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.

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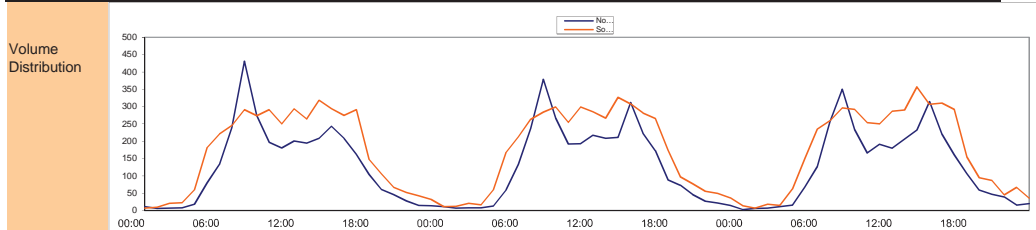
# APPENDIX D

Tube Counts

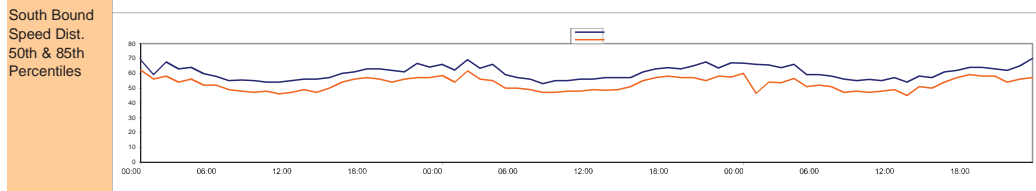
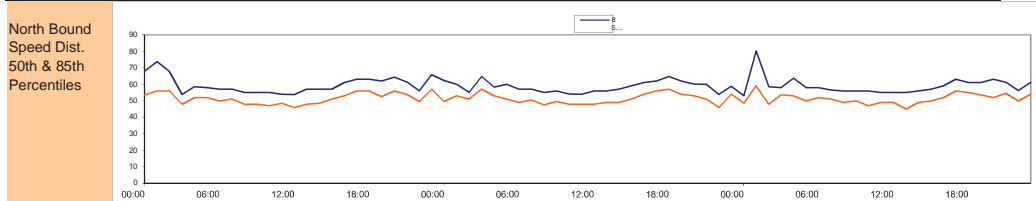
Marigold Street Mid-Block

Suburb: Revesby  
 Sited: 1  
 Speed Limit: 60

Date Record Interval (min)	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016			
	60	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways
Short %	86.7%	85.8%	86.2%	87.3%	86.4%	86.8%	87.2%	87.0%	87.1%	87.1%
Med %	9.1%	10.0%	9.6%	9.1%	9.7%	9.4%	9.0%	9.8%	9.4%	9.4%
Long %	4.0%	4.2%	4.1%	3.4%	3.7%	3.6%	3.5%	3.0%	3.2%	3.2%
7am-7pm Vol	2646	3235	5881	2702	3310	6012	2619	3349	5968	5968
24Hr Vol	3073	4059	7132	3124	4129	7253	3038	4181	7219	7219
85thile Km	58.0	59.0	58.0	58.0	59.0	59.0	58.0	60.0	59.0	59.0
Mean Spd	49.5	50.6	50.1	49.7	50.9	50.4	49.5	51.0	50.3	50.3
Std Dev	9.5	9.1	9.3	9.6	9.6	9.6	10.0	9.6	9.8	9.8
AM PK Interval Vol	431	291	722	379	299	663	350	296	646	646
AM Pk Factor	0.14	0.07	0.10	0.12	0.07	0.09	0.12	0.07	0.09	0.09
AM Pk 85%	55.0	55.4	55.0	55.0	55.0	54.0	55.0	56.0	56.0	56.0
AM PK starts	08:00	08:00	08:00	08:00	09:00	08:00	08:00	08:00	08:00	08:00
PM Pk Interval Vol	243	318	537	312	327	620	315	357	622	622
PM Pk Factor	0.08	0.08	0.08	0.10	0.08	0.09	0.10	0.09	0.09	0.09
PM Pk 85%	57.0	56.0	57.0	59.0	57.0	58.0	57.0	58.0	57.0	57.0
PM Pk starts	15:00	14:00	15:00	15:00	14:00	15:00	15:00	14:00	15:00	15:00



Speed Stats	Tue 15/03	Tue 15/03	Tue 15/03	Wed 16/03	Wed 16/03	Wed 16/03	Thu 17/03	Thu 17/03	Thu 17/03
>9Km	100%	100%	100%	100%	100%	100%	100%	100%	100%
>19Km	99%	99%	99%	99%	99%	99%	99%	99%	99%
>29Km	97%	98%	97%	97%	97%	97%	96%	97%	97%
>39Km	87%	89%	88%	86%	90%	88%	85%	89%	88%
>49Km	51%	55%	53%	54%	56%	55%	54%	57%	56%
>59Km	10%	13%	11%	11%	14%	13%	10%	15%	13%
>69Km	1%	2%	1%	1%	2%	1%	1%	1%	1%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	2,649	3,459	6,108	2,706	3,541	6,247	2,630	3,603	6,233
2: Car + Trailer	15	22	37	21	26	47	20	34	54
3: 2 axle truck	214	312	526	206	314	520	209	304	513
4: 3axle truck	53	75	128	58	68	126	50	77	127
5: 4 axle truck	12	17	29	20	19	39	14	28	42
6: 3 axle semi	3	0	3	3	5	8	6	5	11
7: 4 axle semi	18	39	57	17	37	54	7	21	28
8: 5 axle semi	12	18	30	7	20	27	13	13	26
9: 6 axle semi	61	86	147	54	72	126	58	71	129
10: 7/8 axle truck	24	22	46	23	18	41	19	15	34
11: Road Train	5	4	9	1	1	2	2	2	4
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	7	5	12	8	8	16	10	8	18
14: Motorcycle	40	63	103	49	56	105	45	95	140
Unpaired Axles	0	0	0	0	0	0	0	0	0

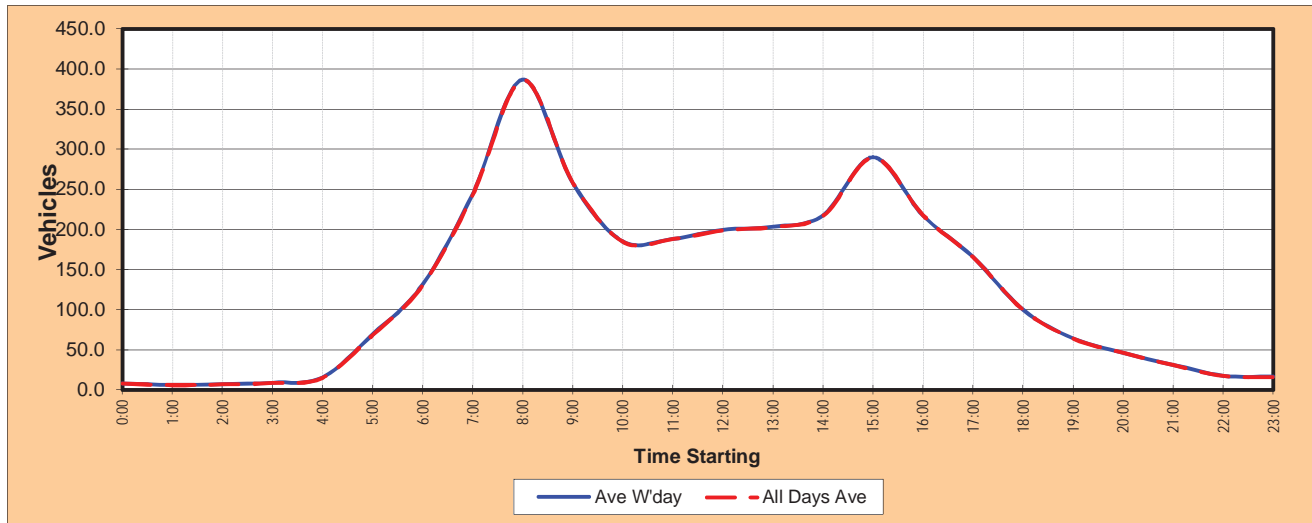
Pace Min	43.0	44.0	43.0	43.0	44.0	43.0	43.0	45.0	44.0
%Vol	68%	67%	67%	66%	66%	66%	66%	65%	66%

Definitions  
 85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Marigold Street	<table border="1"> <tr> <td>Average Weekday</td> <td>3078</td> </tr> <tr> <td>All Day Average</td> <td>3078</td> </tr> <tr> <td>Weekday Heavy's</td> <td>12.7%</td> </tr> <tr> <td>All Day Heavy's</td> <td>12.7%</td> </tr> </table>	Average Weekday	3078	All Day Average	3078	Weekday Heavy's	12.7%	All Day Heavy's	12.7%
Average Weekday	3078									
All Day Average	3078									
Weekday Heavy's	12.7%									
All Day Heavy's	12.7%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	1									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	North Bound									

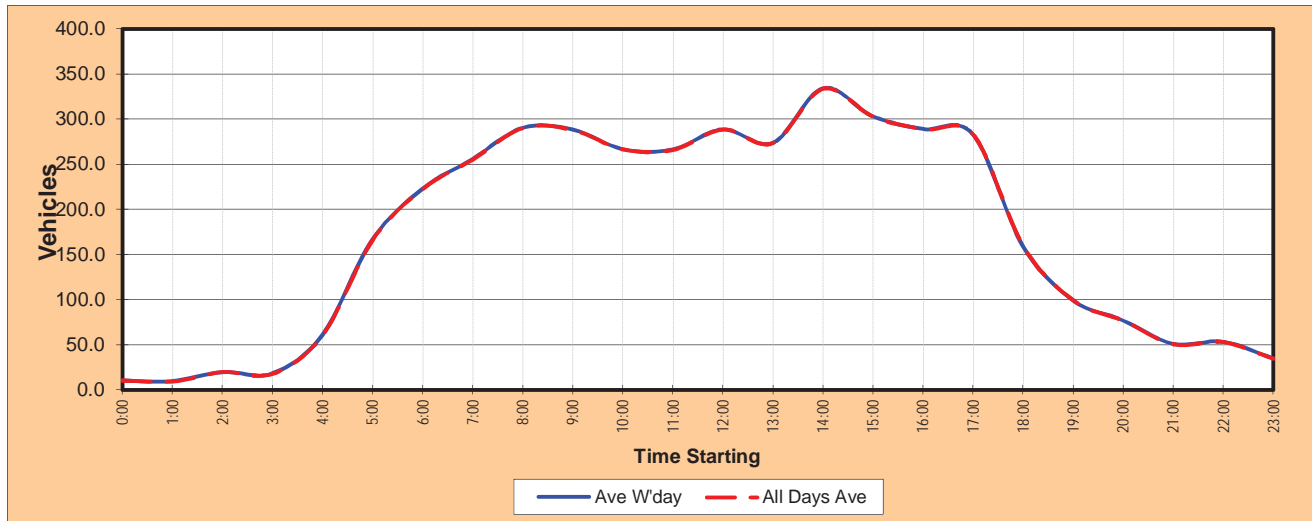
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>431</b>	<b>379</b>	<b>350</b>					
<b>PM Peak</b>		<b>243</b>	<b>312</b>	<b>315</b>					
0:00		11	11	3				8	8
1:00		6	7	6				6	6
2:00		7	8	7				7	7
3:00		8	8	11				9	9
4:00		18	13	16				16	16
5:00		80	59	68				69	69
6:00		133	133	127				131	131
7:00		239	237	256				244	244
8:00		431	379	350				387	387
9:00		274	267	234				258	258
10:00		197	192	166				185	185
11:00		181	193	191				188	188
12:00		201	217	180				199	199
13:00		195	209	206				203	203
14:00		209	211	232				217	217
15:00		243	312	315				290	290
16:00		209	223	221				218	218
17:00		163	173	161				166	166
18:00		104	89	107				100	100
19:00		61	73	59				64	64
20:00		46	46	47				46	46
21:00		28	27	39				31	31
22:00		15	22	16				18	18
23:00		14	15	20				16	16
<b>Total</b>		<b>3073</b>	<b>3124</b>	<b>3038</b>				<b>3078</b>	<b>3078</b>
<b>% Heavies</b>		<b>13.1%</b>	<b>12.5%</b>	<b>12.4%</b>				<b>12.7%</b>	<b>12.7%</b>





<b>Road</b>	Marigold Street	<table border="1"> <tr> <td>Average Weekday</td> <td>4123</td> </tr> <tr> <td>All Day Average</td> <td>4123</td> </tr> <tr> <td>Weekday Heavy's</td> <td>13.4%</td> </tr> <tr> <td>All Day Heavy's</td> <td>13.4%</td> </tr> </table>	Average Weekday	4123	All Day Average	4123	Weekday Heavy's	13.4%	All Day Heavy's	13.4%
Average Weekday	4123									
All Day Average	4123									
Weekday Heavy's	13.4%									
All Day Heavy's	13.4%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	1									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	South Bound									

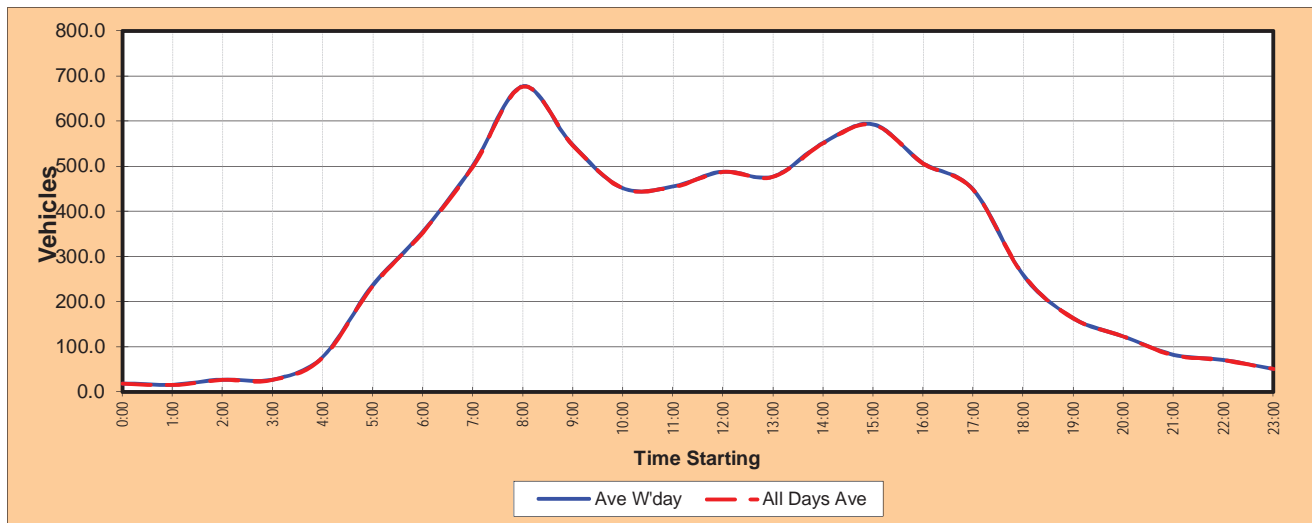
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>291</b>	<b>299</b>	<b>296</b>					
<b>PM Peak</b>		<b>318</b>	<b>327</b>	<b>357</b>					
0:00		7	11	14				11	11
1:00		10	12	7				10	10
2:00		21	21	18				20	20
3:00		23	17	15				18	18
4:00		60	60	63				61	61
5:00		182	168	150				167	167
6:00		221	213	235				223	223
7:00		245	263	259				256	256
8:00		291	284	296				290	290
9:00		274	299	292				288	288
10:00		291	255	254				267	267
11:00		250	299	250				266	266
12:00		294	285	287				289	289
13:00		264	267	290				274	274
14:00		318	327	357				334	334
15:00		294	308	307				303	303
16:00		275	282	310				289	289
17:00		291	266	292				283	283
18:00		148	175	155				159	159
19:00		106	97	95				99	99
20:00		67	77	87				77	77
21:00		52	56	45				51	51
22:00		43	50	67				53	53
23:00		32	37	36				35	35
<b>Total</b>		<b>4059</b>	<b>4129</b>	<b>4181</b>				<b>4123</b>	<b>4123</b>
<b>% Heavies</b>		<b>14.1%</b>	<b>13.4%</b>	<b>12.8%</b>				<b>13.4%</b>	<b>13.4%</b>





<b>Road</b>	Marigold Street	<table border="1"> <tr> <td>Average Weekday</td> <td>7201</td> </tr> <tr> <td>All Day Average</td> <td>7201</td> </tr> <tr> <td>Weekday Heavy's</td> <td>13.1%</td> </tr> <tr> <td>All Day Heavy's</td> <td>13.1%</td> </tr> </table>	Average Weekday	7201	All Day Average	7201	Weekday Heavy's	13.1%	All Day Heavy's	13.1%
Average Weekday	7201									
All Day Average	7201									
Weekday Heavy's	13.1%									
All Day Heavy's	13.1%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	1									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>722</b>	<b>663</b>	<b>646</b>					
<b>PM Peak</b>		<b>537</b>	<b>620</b>	<b>622</b>					
0:00		18	22	17				19	19
1:00		16	19	13				16	16
2:00		28	29	25				27	27
3:00		31	25	26				27	27
4:00		78	73	79				77	77
5:00		262	227	218				236	236
6:00		354	346	362				354	354
7:00		484	500	515				500	500
8:00		722	663	646				677	677
9:00		548	566	526				547	547
10:00		488	447	420				452	452
11:00		431	492	441				455	455
12:00		495	502	467				488	488
13:00		459	476	496				477	477
14:00		527	538	589				551	551
15:00		537	620	622				593	593
16:00		484	505	531				507	507
17:00		454	439	453				449	449
18:00		252	264	262				259	259
19:00		167	170	154				164	164
20:00		113	123	134				123	123
21:00		80	83	84				82	82
22:00		58	72	83				71	71
23:00		46	52	56				51	51
<b>Total</b>		<b>7132</b>	<b>7253</b>	<b>7219</b>				<b>7201</b>	<b>7201</b>
<b>% Heavies</b>		<b>13.7%</b>	<b>13.0%</b>	<b>12.7%</b>				<b>13.1%</b>	<b>13.1%</b>





# Volume & Speed Data

All Vehicles: 49.5  
 Ave. Speed: 58.0  
 85%ile: 3.073  
 Vehicles/Day: 3.073

Direction: North B<sup>C</sup> North Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016  
Mid-Block

Marigold Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: 49.7  
 Ave. Speed: 58.0  
 85%ile: 3,124  
 Vehicles/Day: 3,124

Direction: North Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Marigold Street

Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles  
Ave. Speed: 50.6  
85%ile: 59.0  
Vehicles/Day: 4,059

Direction: South Bk South Bound  
Day: Tue  
Week: Current



Tue 15/03/2016

Marigold Street

Mid-Block

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period



# Volume & Speed Data

All Vehicles: 50.9  
 Ave. Speed: 59.0  
 85%ile: 4,129  
 Vehicles/Day: 4,129

Direction: South Bk South Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Marigold Street

Mid-Block

All Vehicles - Ave. Speed (blue solid line)  
 All Vehicles - 85th%ile Speed (red solid line)  
 Volume per Period (green dashed line)



# Volume & Speed Data

All Vehicles  
Ave. Speed: 50.1  
85%ile: 58.0  
Vehicles/Day: 7,132

Direction: Two way Two ways  
Day: Tue  
Week: Current Current



Tue 15/03/2016

Marigold Street

Mid-Block

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period



# Volume & Speed Data

All Vehicles  
Ave. Speed: 50.4  
85%ile: 59.0  
Vehicles/Day: 7,253

Direction: Two way  
Day: Wed  
Week: Current



Wed 16/03/2016

Marigold Street

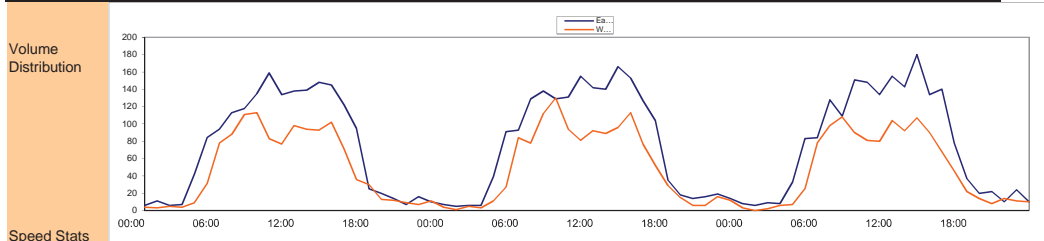
Mid-Block

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period

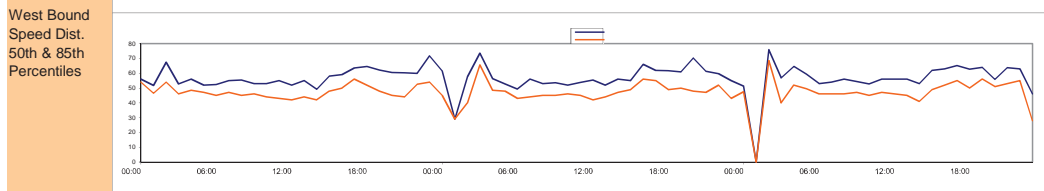
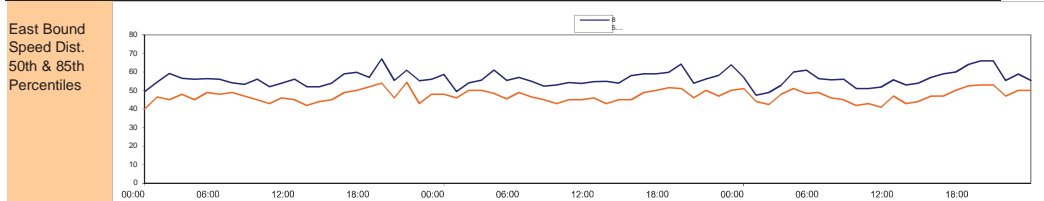
Carrington Street Mid-Bloc

Suburb                      Revesby  
 Sited                         2  
 Speed Limit                50

Date Record Interval (min)	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016			
	60	East Bound	West Bound	Two ways	East Bound	West Bound	Two ways	East Bound	West Bound	Two ways
Short %	77.3%	80.0%	78.4%	79.0%	81.7%	80.0%	77.6%	83.9%	80.1%	80.1%
Med %	17.1%	15.0%	16.2%	16.0%	13.2%	14.9%	17.2%	12.3%	15.3%	15.3%
Long %	3.7%	4.2%	3.9%	3.4%	4.6%	3.9%	3.7%	3.3%	3.5%	3.5%
7am-7pm Vol	1471	996	2467	1549	1043	2592	1537	986	2523	2523
24Hr Vol	1788	1182	2970	1877	1233	3110	1854	1164	3018	3018
85thile Km	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
Mean Spd	45.7	45.4	45.6	46.0	46.4	46.1	46.0	46.9	46.4	46.4
Std Dev	11.4	11.4	11.4	11.9	11.7	11.8	11.2	11.8	11.5	11.5
AM PK Interval Vol	159	113	248	155	130	259	151	108	241	241
AM Pk Factor	0.09	0.10	0.08	0.08	0.11	0.08	0.08	0.09	0.08	0.08
AM Pk 85%	52.0	53.0	55.0	53.8	53.5	53.2	51.0	56.0	53.0	53.0
AM PK starts	10:00	09:00	09:00	11:00	09:00	09:00	09:00	08:00	09:00	09:00
PM Pk Interval Vol	148	102	247	166	113	266	180	107	287	287
PM Pk Factor	0.08	0.09	0.08	0.09	0.09	0.09	0.10	0.09	0.10	0.10
PM Pk 85%	52.0	58.0	56.0	54.0	55.1	57.0	54.0	53.0	54.0	54.0
PM Pk starts	14:00	15:00	15:00	14:00	15:00	15:00	14:00	14:00	14:00	14:00



Speed Stats	Tue 15/03	Tue 15/03	Tue 15/03	Wed 16/03	Wed 16/03	Wed 16/03	Thu 17/03	Thu 17/03	Thu 17/03
>9Km	99%	100%	100%	100%	100%	100%	100%	100%	100%
>19Km	97%	98%	97%	96%	98%	97%	98%	98%	98%
>29Km	91%	91%	91%	91%	92%	91%	92%	91%	92%
>39Km	75%	71%	74%	75%	77%	76%	74%	76%	75%
>49Km	36%	36%	36%	37%	39%	37%	35%	41%	37%
>59Km	7%	9%	8%	9%	9%	9%	9%	13%	11%
>69Km	1%	1%	1%	2%	2%	2%	1%	2%	1%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	1,371	943	2,314	1,468	997	2,465	1,419	967	2,386
2: Car + Trailer	12	3	15	14	10	24	20	10	30
3: 2 axle truck	214	138	352	222	118	340	223	102	325
4: 3axle truck	59	29	88	54	34	88	79	35	114
5: 4 axle truck	32	10	42	24	11	35	16	6	22
6: 3 axle semi	1	0	1	1	0	1	2	2	4
7: 4 axle semi	6	6	12	6	3	9	11	3	14
8: 5 axle semi	8	5	13	10	3	13	7	5	12
9: 6 axle semi	38	31	69	40	43	83	47	24	71
10: 7/8 axle truck	12	8	20	6	8	14	1	4	5
11: Road Train	1	0	1	0	0	0	0	0	0
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	34	9	43	32	6	38	29	6	35
14: Motorcycle	20	23	43	28	19	47	9	29	38
Unpaired Axles	0	0	0	0	0	0	0	0	0

Pace Min	40.0	39.0	40.0	39.0	40.0	40.0	39.0	41.0	39.0
%Vol	60%	55%	58%	59%	59%	59%	58%	55%	57%

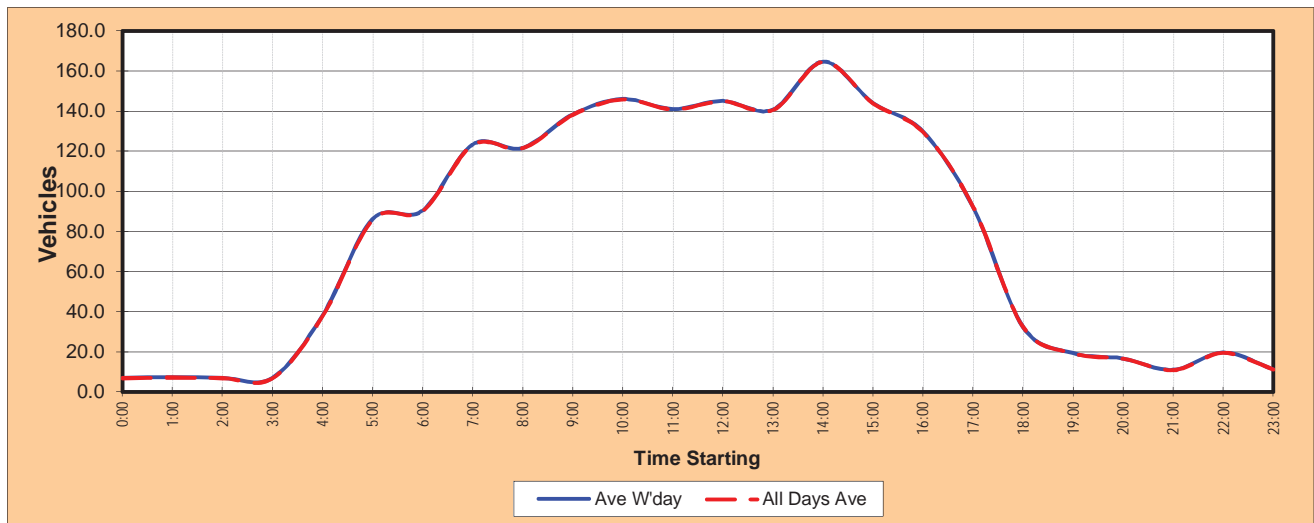
Definitions

85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Carrington Street	<table border="1"> <tr> <td>Average Weekday</td> <td>1840</td> </tr> <tr> <td>All Day Average</td> <td>1840</td> </tr> <tr> <td>Weekday Heavy's</td> <td>20.3%</td> </tr> <tr> <td>All Day Heavy's</td> <td>20.3%</td> </tr> </table>	Average Weekday	1840	All Day Average	1840	Weekday Heavy's	20.3%	All Day Heavy's	20.3%
Average Weekday	1840									
All Day Average	1840									
Weekday Heavy's	20.3%									
All Day Heavy's	20.3%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	2									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	East Bound									

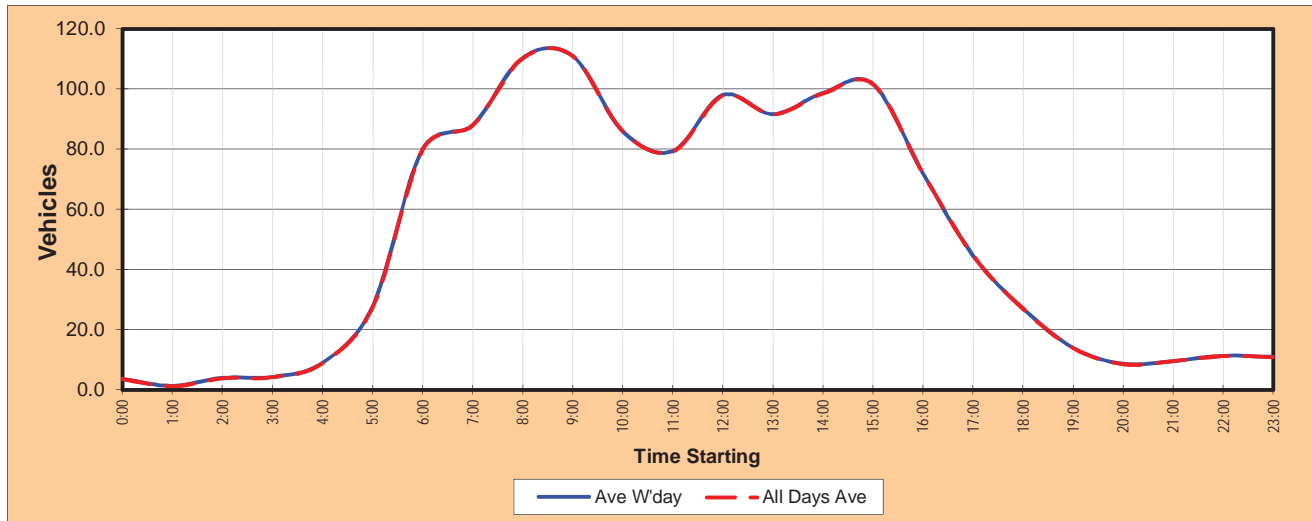
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>159</b>	<b>155</b>	<b>151</b>					
<b>PM Peak</b>		<b>148</b>	<b>166</b>	<b>180</b>					
0:00		6	7	8				7	7
1:00		11	5	6				7	7
2:00		6	6	9				7	7
3:00		7	6	8				7	7
4:00		42	39	33				38	38
5:00		84	91	83				86	86
6:00		94	93	84				90	90
7:00		113	129	128				123	123
8:00		118	138	109				122	122
9:00		135	129	151				138	138
10:00		159	131	148				146	146
11:00		134	155	134				141	141
12:00		138	142	155				145	145
13:00		139	140	143				141	141
14:00		148	166	180				165	165
15:00		145	153	134				144	144
16:00		122	127	140				130	130
17:00		95	104	78				92	92
18:00		25	35	37				32	32
19:00		20	18	20				19	19
20:00		14	14	22				17	17
21:00		7	16	10				11	11
22:00		16	19	24				20	20
23:00		10	14	10				11	11
<b>Total</b>		<b>1788</b>	<b>1877</b>	<b>1854</b>				<b>1840</b>	<b>1840</b>
<b>% Heavies</b>		<b>20.7%</b>	<b>19.3%</b>	<b>20.8%</b>				<b>20.3%</b>	<b>20.3%</b>





<b>Road</b>	Carrington Street	<table border="1"> <tr> <td>Average Weekday</td> <td>1193</td> </tr> <tr> <td>All Day Average</td> <td>1193</td> </tr> <tr> <td>Weekday Heavy's</td> <td>17.5%</td> </tr> <tr> <td>All Day Heavy's</td> <td>17.5%</td> </tr> </table>	Average Weekday	1193	All Day Average	1193	Weekday Heavy's	17.5%	All Day Heavy's	17.5%
Average Weekday	1193									
All Day Average	1193									
Weekday Heavy's	17.5%									
All Day Heavy's	17.5%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	2									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	West Bound									

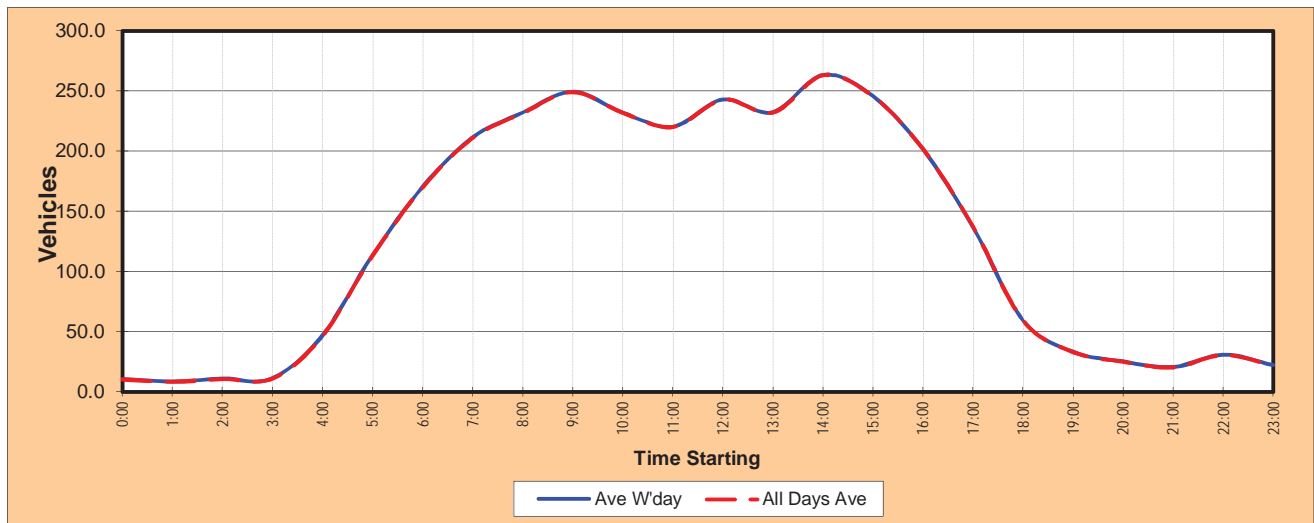
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>113</b>	<b>130</b>	<b>108</b>					
<b>PM Peak</b>		<b>102</b>	<b>113</b>	<b>107</b>					
0:00		4	4	3				4	4
1:00		3	1	0				1	1
2:00		5	5	2				4	4
3:00		4	3	6				4	4
4:00		9	11	7				9	9
5:00		31	27	25				28	28
6:00		78	84	78				80	80
7:00		88	78	98				88	88
8:00		111	112	108				110	110
9:00		113	130	90				111	111
10:00		83	94	81				86	86
11:00		77	81	80				79	79
12:00		98	92	104				98	98
13:00		94	89	92				92	92
14:00		93	96	107				99	99
15:00		102	113	90				102	102
16:00		71	77	68				72	72
17:00		36	52	46				45	45
18:00		30	29	22				27	27
19:00		13	15	14				14	14
20:00		12	6	8				9	9
21:00		9	6	14				10	10
22:00		7	16	11				11	11
23:00		11	12	10				11	11
<b>Total</b>		<b>1182</b>	<b>1233</b>	<b>1164</b>				<b>1193</b>	<b>1193</b>
<b>% Heavies</b>		<b>19.2%</b>	<b>17.8%</b>	<b>15.5%</b>				<b>17.5%</b>	<b>17.5%</b>





<b>Road</b>	Carrington Street	<table border="1"> <tr> <td>Average Weekday</td> <td>3033</td> </tr> <tr> <td>All Day Average</td> <td>3033</td> </tr> <tr> <td>Weekday Heavy's</td> <td>19.2%</td> </tr> <tr> <td>All Day Heavy's</td> <td>19.2%</td> </tr> </table>	Average Weekday	3033	All Day Average	3033	Weekday Heavy's	19.2%	All Day Heavy's	19.2%
Average Weekday	3033									
All Day Average	3033									
Weekday Heavy's	19.2%									
All Day Heavy's	19.2%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	2									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>248</b>	<b>259</b>	<b>241</b>					
<b>PM Peak</b>		<b>247</b>	<b>266</b>	<b>287</b>					
0:00		10	11	11				11	11
1:00		14	6	6				9	9
2:00		11	11	11				11	11
3:00		11	9	14				11	11
4:00		51	50	40				47	47
5:00		115	118	108				114	114
6:00		172	177	162				170	170
7:00		201	207	226				211	211
8:00		229	250	217				232	232
9:00		248	259	241				249	249
10:00		242	225	229				232	232
11:00		211	236	214				220	220
12:00		236	234	259				243	243
13:00		233	229	235				232	232
14:00		241	262	287				263	263
15:00		247	266	224				246	246
16:00		193	204	208				202	202
17:00		131	156	124				137	137
18:00		55	64	59				59	59
19:00		33	33	34				33	33
20:00		26	20	30				25	25
21:00		16	22	24				21	21
22:00		23	35	35				31	31
23:00		21	26	20				22	22
<b>Total</b>		<b>2970</b>	<b>3110</b>	<b>3018</b>				<b>3033</b>	<b>3033</b>
<b>% Heavies</b>		<b>20.1%</b>	<b>18.7%</b>	<b>18.8%</b>				<b>19.2%</b>	<b>19.2%</b>





# Volume & Speed Data

All Vehicles: 45.7  
 Ave. Speed: 56.0  
 85%ile: 1,788  
 Vehicles/Day: 1,788

Direction: East Bound East Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

Carrington Street

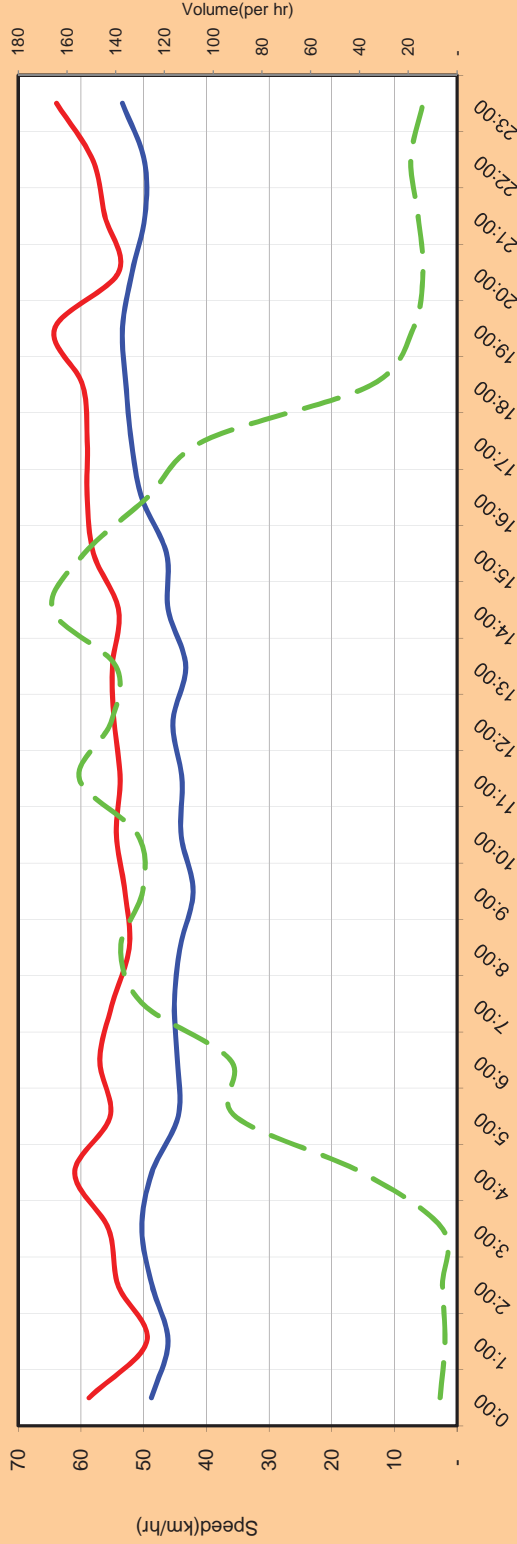
Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: 46.0 Direction: East Bound East Bound  
 Ave. Speed: 56.0 Day: Wed Wed  
 85%ile: 1,877 Week: Current Current  
 Vehicles/Day



Wed 16/03/2016

Carrington Street

Mid-Block

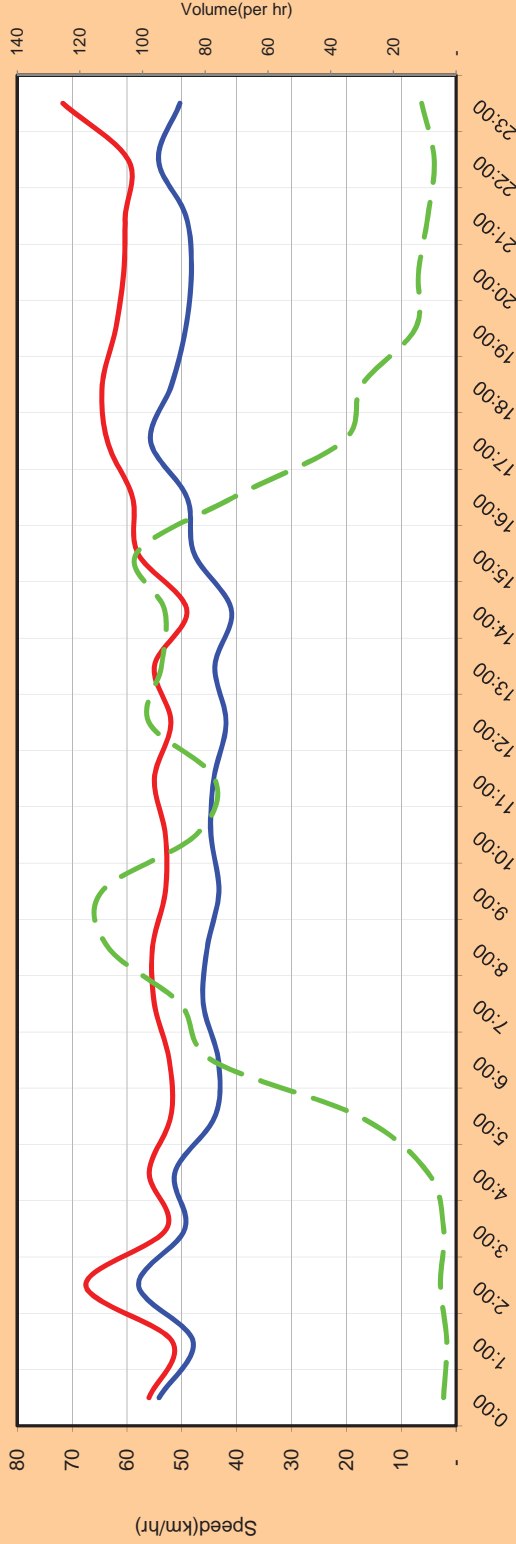
— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: 45.4  
 Ave. Speed: 56.0  
 85%ile: 1,182  
 Vehicles/Day: 1,182

Direction: West Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

Carrington Street

Mid-Block

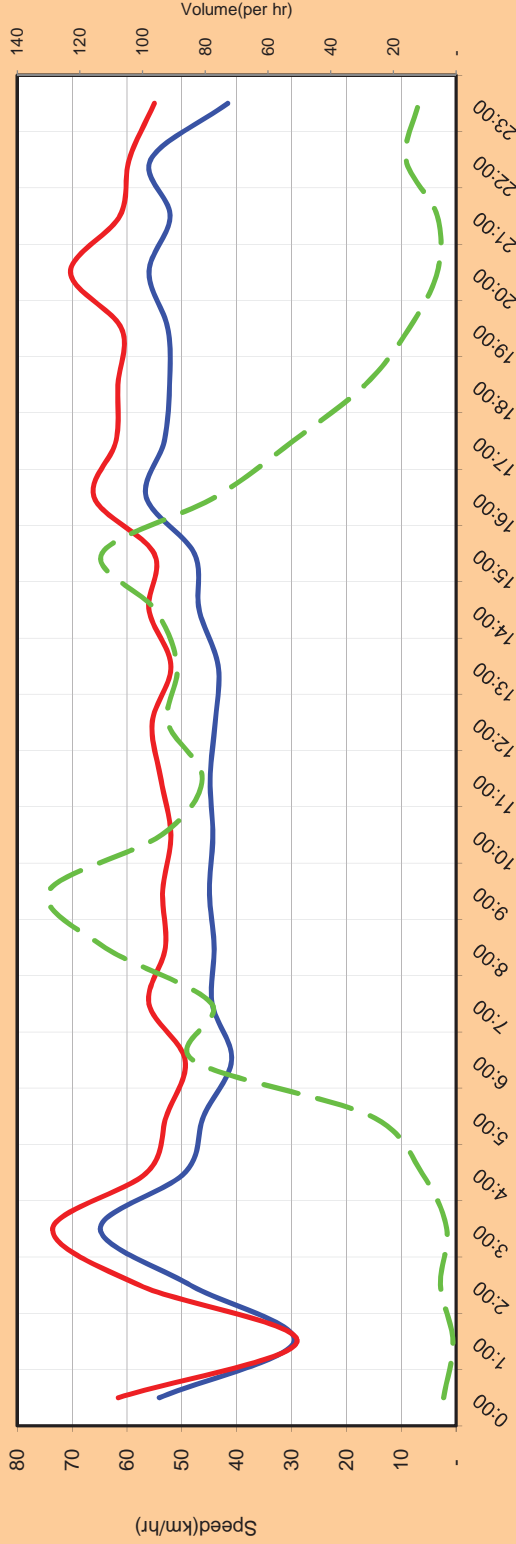
Legend:  
 All Vehicles - Ave. Speed (Blue solid line)  
 All Vehicles - 85th%ile Speed (Red solid line)  
 Volume per Period (Green dashed line)



# Volume & Speed Data

All Vehicles: West B0 West Bound  
 Ave. Speed: 46.4  
 85%ile: 56.0  
 Vehicles/Day: 1,233

Direction: West B0 West Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Mid-Block

Carrington Street

All Vehicles - Ave. Speed (blue solid line)  
All Vehicles - 85th%ile Speed (red solid line)  
Volume per Period (green dashed line)



# Volume & Speed Data

All Vehicles: **Two way** Direction: **Two ways**  
 Ave. Speed: **45.6**  
 85%ile: **56.0** Day: **Tue**  
 Vehicles/Day: **2,970** Week: **Current**



Tue 15/03/2016

Carrington Street

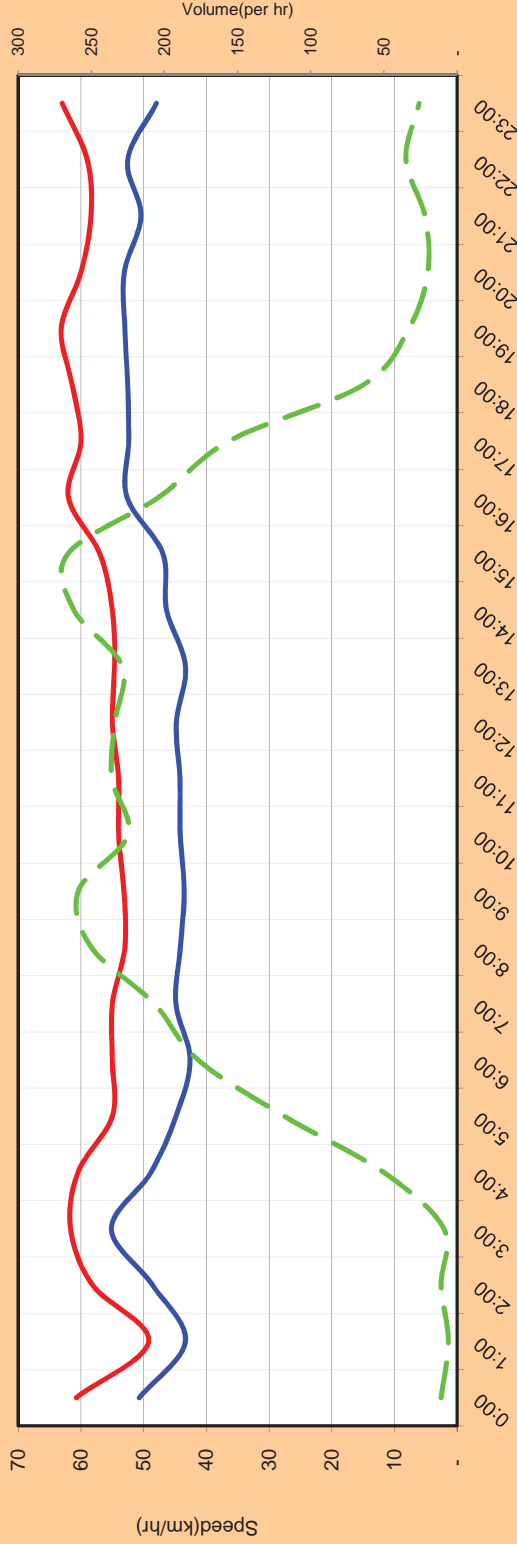
Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: **Two way** Direction: **Two ways**  
 Ave. Speed: **46.1**  
 85%ile: **Wed** Day: **Wed**  
 Vehicles/Day: **3,110** Week: **Current**



Wed 16/03/2016

Carrington Street

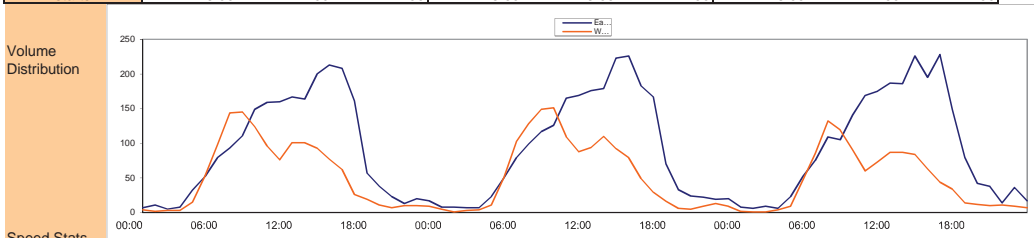
Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period

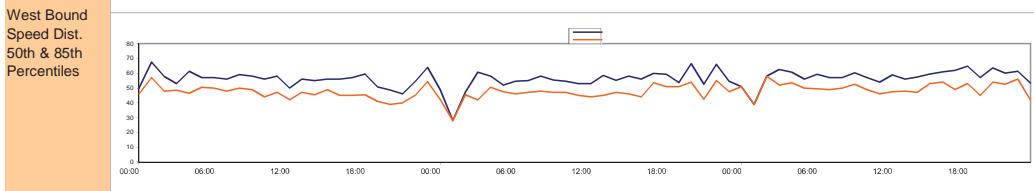
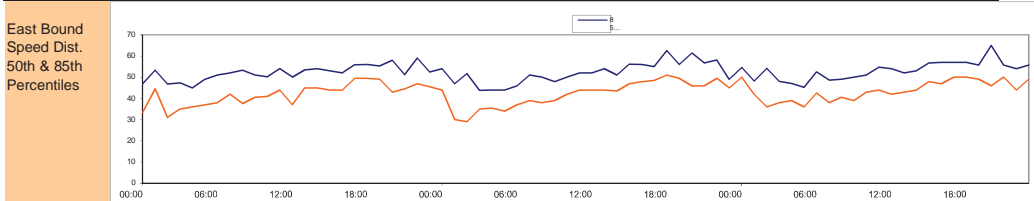
Gordon Parker Street Mid-I

Suburb: Revesby  
 SiteId: 03  
 Speed Limit: 50

Date Record Interval (min)	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016		
	60	East Bound	West Bound	Two ways	East Bound	West Bound	Two ways	East Bound	West Bound
Short %	81.1%	83.1%	81.9%	84.4%	84.1%	84.3%	83.3%	86.3%	84.2%
Med %	14.2%	11.9%	13.3%	11.7%	11.1%	11.5%	12.7%	11.0%	12.1%
Long %	3.6%	3.9%	3.7%	3.0%	4.1%	3.4%	3.3%	2.6%	3.0%
7am-7pm Vol	1842	1064	2906	1900	1094	2994	1949	888	2837
24Hr Vol	2147	1289	3436	2200	1313	3513	2275	1086	3361
85thile Km	53.0	56.7	55.0	54.0	56.0	55.0	54.0	59.0	56.0
Mean Spd	43.3	46.5	44.4	43.8	46.1	44.7	44.2	49.1	45.8
Std Dev	10.5	11.5	11.0	10.7	11.0	10.9	10.6	10.6	10.9
AM PK Interval Vol	160	145	273	169	151	277	175	132	248
AM Pk Factor	0.07	0.11	0.08	0.08	0.12	0.08	0.08	0.12	0.07
AM Pk 85%	54.0	59.0	55.0	52.0	55.4	53.0	54.8	57.0	54.0
AM PK starts	11:00	08:00	09:00	11:00	09:00	09:00	11:00	07:00	11:00
PM PK Interval Vol	213	101	293	226	110	315	228	87	310
PM Pk Factor	0.10	0.08	0.09	0.10	0.08	0.09	0.10	0.08	0.09
PM Pk 85%	53.0	50.0	55.0	56.1	58.5	52.8	57.0	59.0	54.5
PM Pk starts	15:00	12:00	14:00	15:00	13:00	14:00	16:00	12:00	14:00



Speed Stats	Tue	Wed	Thu	Tue	Wed	Thu	Tue	Wed	Thu
>9Km	100%	100%	100%	100%	100%	100%	100%	100%	100%
>19Km	98%	98%	98%	98%	98%	98%	99%	99%	99%
>29Km	90%	91%	90%	90%	90%	90%	91%	95%	93%
>39Km	63%	74%	67%	65%	74%	68%	66%	81%	71%
>49Km	27%	42%	33%	28%	39%	32%	31%	52%	38%
>59Km	5%	10%	7%	5%	8%	6%	5%	13%	8%
>69Km	1%	1%	1%	1%	1%	1%	1%	1%	1%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	1,728	1,065	2,793	1,841	1,093	2,934	1,868	931	2,799
2: Car + Trailer	14	6	20	15	11	26	26	6	32
3: 2 axle truck	191	90	281	141	88	229	147	75	222
4: 3axle truck	80	46	126	82	45	127	86	35	121
5: 4 axle truck	34	17	51	35	13	48	56	9	65
6: 3 axle semi	1	0	1	2	0	2	2	1	3
7: 4 axle semi	6	6	12	8	3	11	6	1	7
8: 5 axle semi	3	7	10	2	4	6	5	3	8
9: 6 axle semi	52	28	80	41	40	81	52	21	73
10: 7/8 axle truck	14	9	23	12	7	19	8	2	10
11: Road Train	1	0	1	0	0	0	1	0	1
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	23	15	38	21	9	30	18	2	20
14: Motorcycle	52	20	72	109	59	168	135	22	157
Unpaired Axles	0	0	0	0	0	0	0	0	0

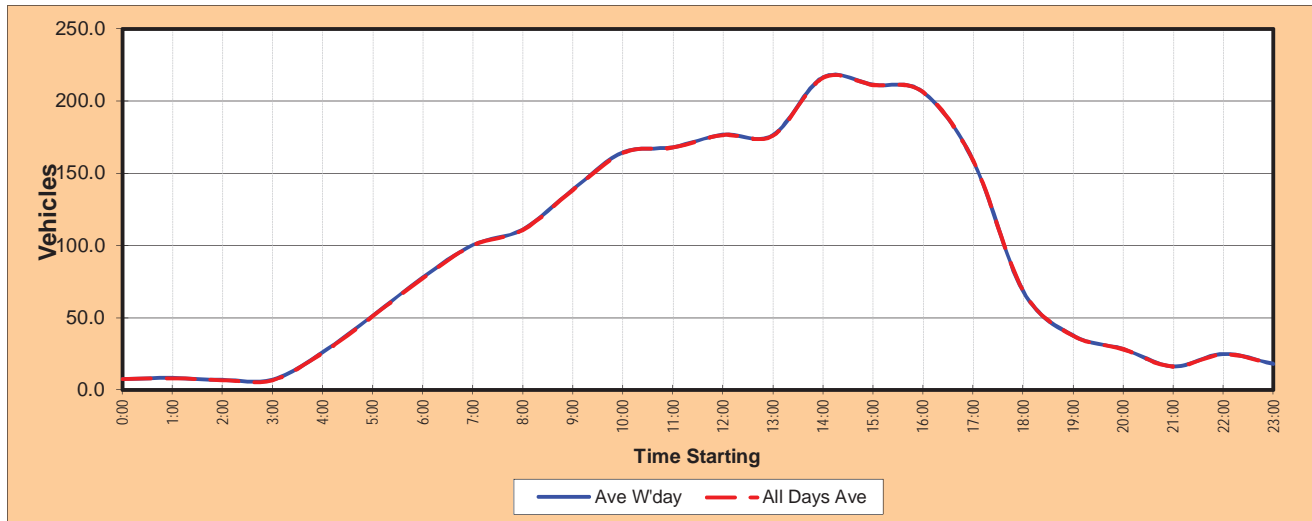
Pace Min	37.0	41.0	38.0	36.0	42.0	39.0	39.0	44.0	39.0
%Vol	55%	58%	54%	55%	58%	56%	56%	59%	55%

Definitions  
 85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Gordon Parker Street	<table border="1"> <tr> <td>Average Weekday</td> <td>2207</td> </tr> <tr> <td>All Day Average</td> <td>2207</td> </tr> <tr> <td>Weekday Heavy's</td> <td>16.1%</td> </tr> <tr> <td>All Day Heavy's</td> <td>16.1%</td> </tr> </table>	Average Weekday	2207	All Day Average	2207	Weekday Heavy's	16.1%	All Day Heavy's	16.1%
Average Weekday	2207									
All Day Average	2207									
Weekday Heavy's	16.1%									
All Day Heavy's	16.1%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	03									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	East Bound									

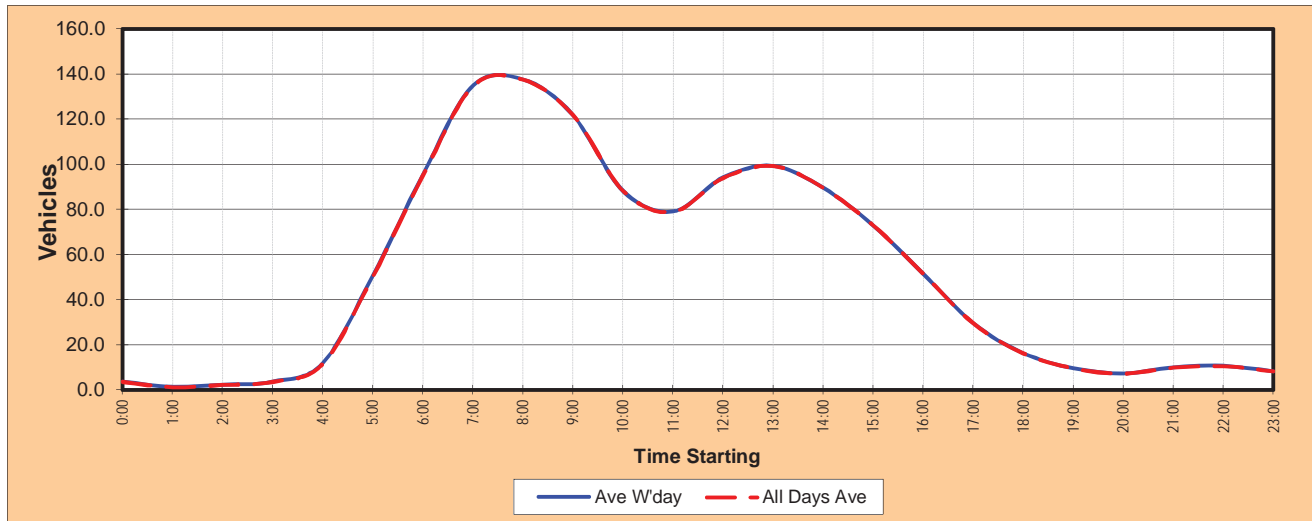
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>160</b>	<b>169</b>	<b>175</b>					
<b>PM Peak</b>		<b>213</b>	<b>226</b>	<b>228</b>					
0:00		7	8	8				8	8
1:00		11	8	6				8	8
2:00		5	7	9				7	7
3:00		8	7	6				7	7
4:00		32	23	23				26	26
5:00		52	50	52				51	51
6:00		79	79	75				78	78
7:00		93	99	109				100	100
8:00		111	117	105				111	111
9:00		149	126	141				139	139
10:00		159	165	169				164	164
11:00		160	169	175				168	168
12:00		167	176	187				177	177
13:00		164	179	186				176	176
14:00		200	223	226				216	216
15:00		213	226	195				211	211
16:00		208	183	228				206	206
17:00		161	167	149				159	159
18:00		57	70	79				69	69
19:00		38	33	42				38	38
20:00		23	24	38				28	28
21:00		13	22	14				16	16
22:00		20	19	36				25	25
23:00		17	20	17				18	18
<b>Total</b>		<b>2147</b>	<b>2200</b>	<b>2275</b>				<b>2207</b>	<b>2207</b>
<b>% Heavies</b>		<b>17.8%</b>	<b>14.7%</b>	<b>16.0%</b>				<b>16.1%</b>	<b>16.1%</b>





<b>Road</b>	Gordon Parker Street	<b>Average Weekday</b>	1229
<b>Location</b>	Mid-Block	<b>All Day Average</b>	1229
<b>Site No.</b>	03	<b>Weekday Heavy's</b>	14.9%
<b>Start Date</b>	Tuesday 15/03/2016	<b>All Day Heavy's</b>	14.9%
<b>Direction</b>	West Bound		

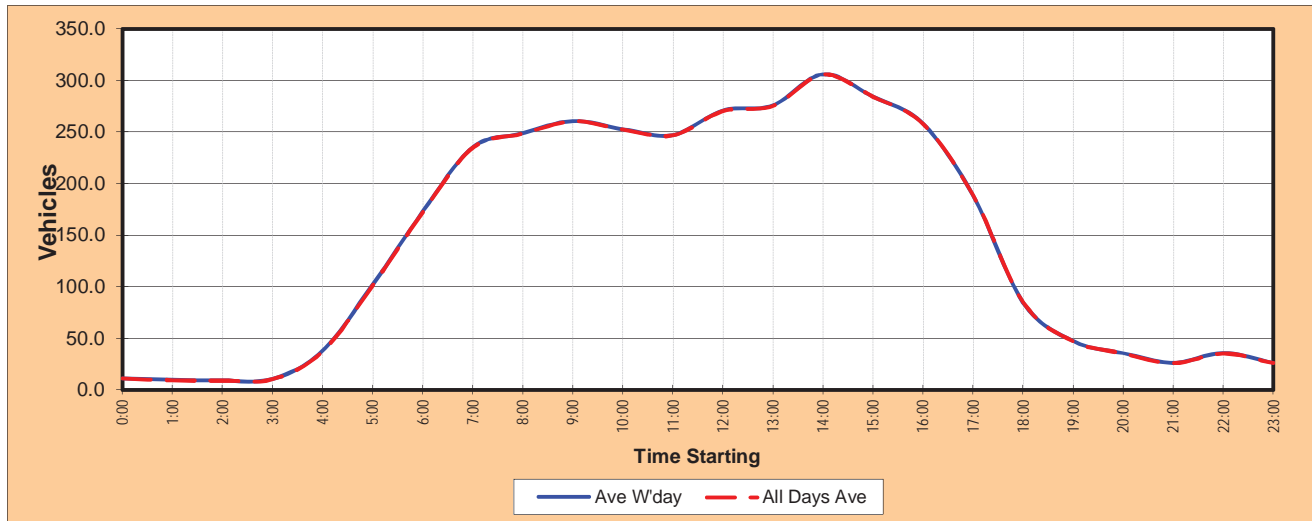
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>145</b>	<b>151</b>	<b>132</b>					
<b>PM Peak</b>		<b>101</b>	<b>110</b>	<b>87</b>					
0:00		4	5	2				4	4
1:00		2	1	1				1	1
2:00		3	3	1				2	2
3:00		3	4	4				4	4
4:00		15	11	9				12	12
5:00		53	51	47				50	50
6:00		98	102	85				95	95
7:00		144	128	132				135	135
8:00		145	149	119				138	138
9:00		124	151	91				122	122
10:00		96	109	60				88	88
11:00		76	88	73				79	79
12:00		101	94	87				94	94
13:00		101	110	87				99	99
14:00		93	92	84				90	90
15:00		77	79	63				73	73
16:00		62	49	44				52	52
17:00		26	29	34				30	30
18:00		19	16	14				16	16
19:00		11	6	12				10	10
20:00		7	5	10				7	7
21:00		10	9	11				10	10
22:00		10	13	9				11	11
23:00		9	9	7				8	8
<b>Total</b>		<b>1289</b>	<b>1313</b>	<b>1086</b>				<b>1229</b>	<b>1229</b>
<b>% Heavies</b>		<b>15.7%</b>	<b>15.2%</b>	<b>13.5%</b>				<b>14.9%</b>	<b>14.9%</b>





<b>Road</b>	Gordon Parker Street	<table border="1"> <tr> <td>Average Weekday</td> <td>3437</td> </tr> <tr> <td>All Day Average</td> <td>3437</td> </tr> <tr> <td>Weekday Heavy's</td> <td>15.7%</td> </tr> <tr> <td>All Day Heavy's</td> <td>15.7%</td> </tr> </table>	Average Weekday	3437	All Day Average	3437	Weekday Heavy's	15.7%	All Day Heavy's	15.7%
Average Weekday	3437									
All Day Average	3437									
Weekday Heavy's	15.7%									
All Day Heavy's	15.7%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	03									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>273</b>	<b>277</b>	<b>248</b>					
<b>PM Peak</b>		<b>293</b>	<b>315</b>	<b>310</b>					
0:00		11	13	10				11	11
1:00		13	9	7				10	10
2:00		8	10	10				9	9
3:00		11	11	10				11	11
4:00		47	34	32				38	38
5:00		105	101	99				102	102
6:00		177	181	160				173	173
7:00		237	227	241				235	235
8:00		256	266	224				249	249
9:00		273	277	232				261	261
10:00		255	274	229				253	253
11:00		236	257	248				247	247
12:00		268	270	274				271	271
13:00		265	289	273				276	276
14:00		293	315	310				306	306
15:00		290	305	258				284	284
16:00		270	232	272				258	258
17:00		187	196	183				189	189
18:00		76	86	93				85	85
19:00		49	39	54				47	47
20:00		30	29	48				36	36
21:00		23	31	25				26	26
22:00		30	32	45				36	36
23:00		26	29	24				26	26
<b>Total</b>		<b>3436</b>	<b>3513</b>	<b>3361</b>				<b>3437</b>	<b>3437</b>
<b>% Heavies</b>		<b>17.0%</b>	<b>14.9%</b>	<b>15.2%</b>				<b>15.7%</b>	<b>15.7%</b>

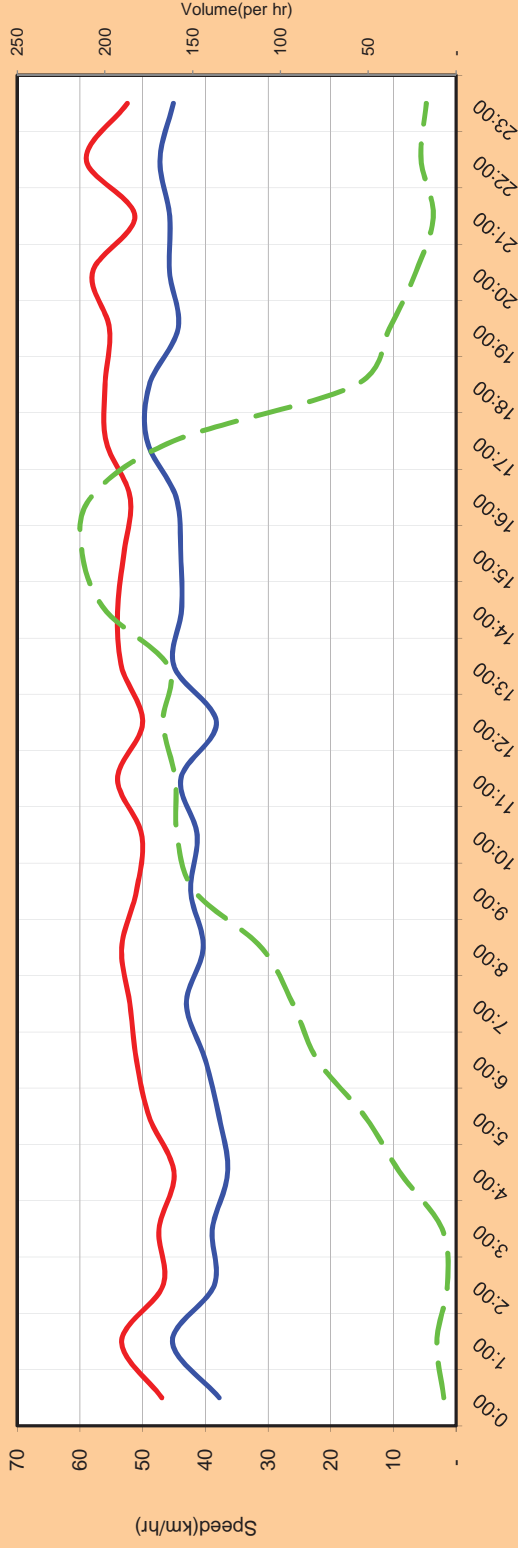




# Volume & Speed Data

All Vehicles: 43.3  
 Ave. Speed: 53.0  
 85%ile: 2,147  
 Vehicles/Day: 2,147

Direction: East Bound East Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

Gordon Parker Street

Mid-Block

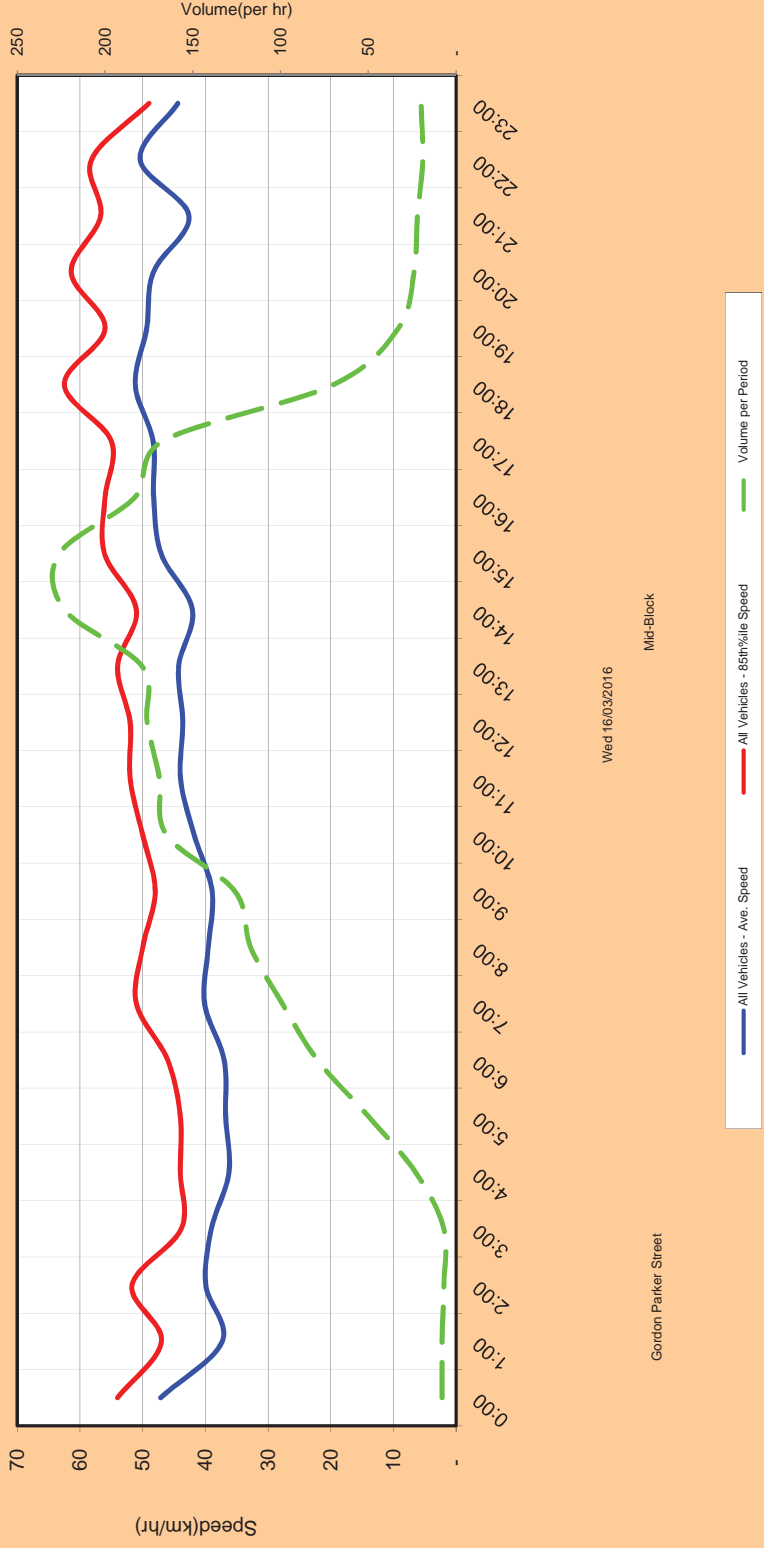
Legend:  
 All Vehicles - Ave. Speed (Blue solid line)  
 All Vehicles - 85th%ile Speed (Red solid line)  
 Volume per Period (Green dashed line)



# Volume & Speed Data

All Vehicles: **East Bld East Bound**  
 Ave. Speed: **43.8**  
 85%ile: **54.0**  
 Vehicles/Day: **2,200**

Direction: **East Bld East Bound**  
 Day: **Wed**  
 Week: **Current**



Wed 16/03/2016  
Mid-Block

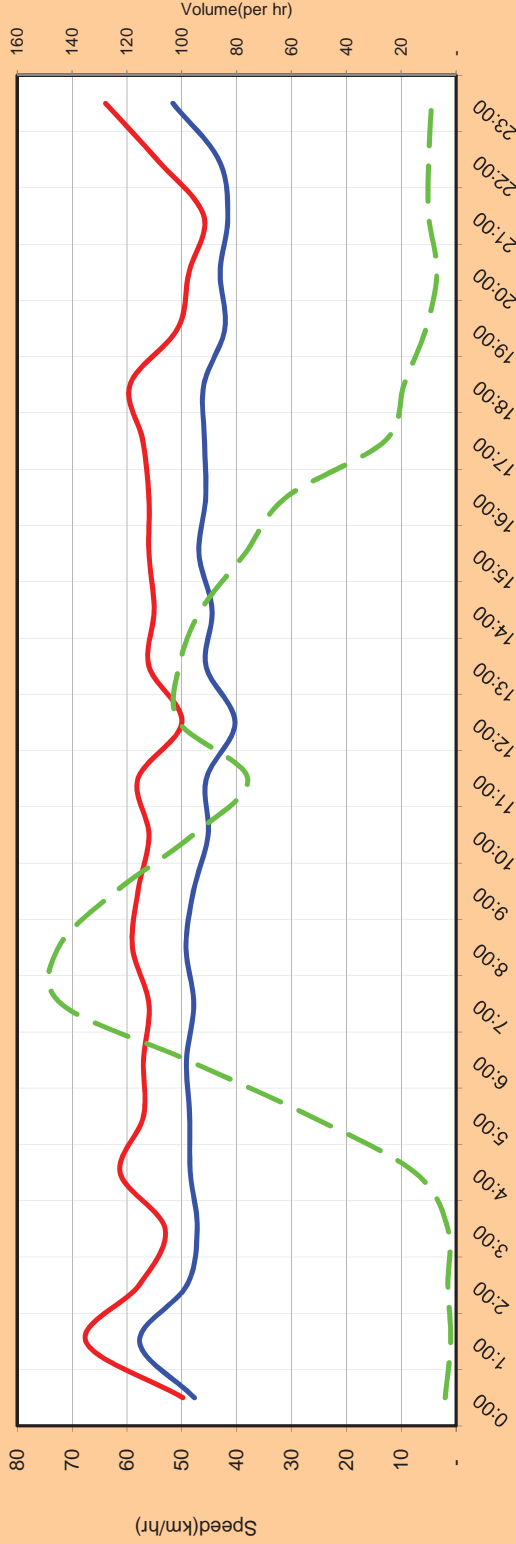
Gordon Parker Street



# Volume & Speed Data

All Vehicles: 46.5  
 Ave. Speed: 56.7  
 85%ile: 1,289  
 Vehicles/Day: 1,289

Direction: West Bo West Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

Gordon Parker Street

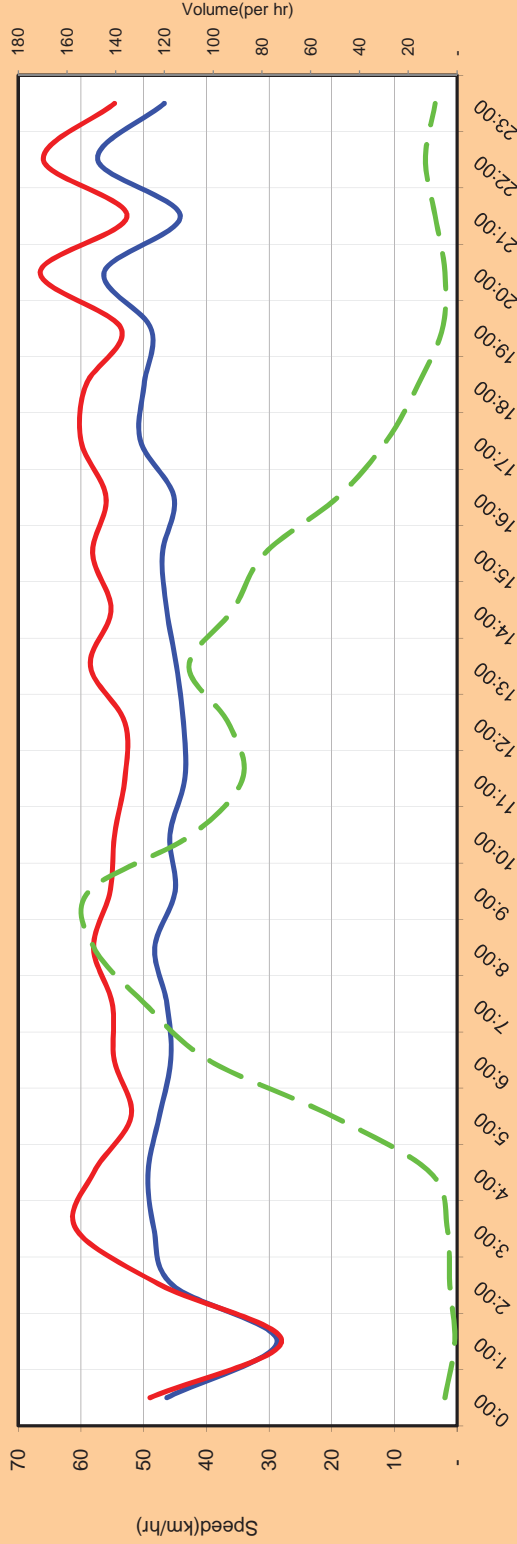
Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: **West Bc** West Bound  
 Ave. Speed: **46.1**  
 85%ile: **56.0**  
 Vehicles/Day: **1,313**  
 Direction: **West Bc** West Bound  
 Day: **Wed**  
 Week: **Current**



Wed 16/03/2016

Gordon Parker Street

Mid-Block

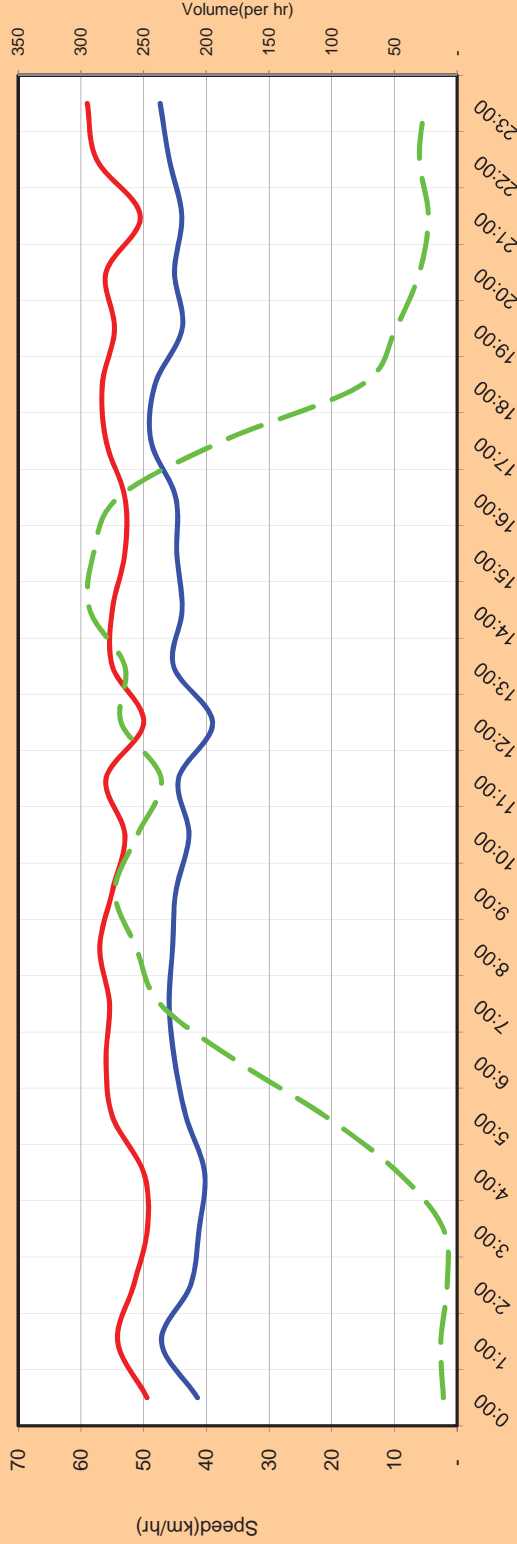
— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles  
Ave. Speed: 44.4  
85%ile: 55.0  
Vehicles/Day: 3,436

Direction: Two way Two ways  
Day: Tue  
Week: Current



Tue 15/03/2016

Gordon Parker Street

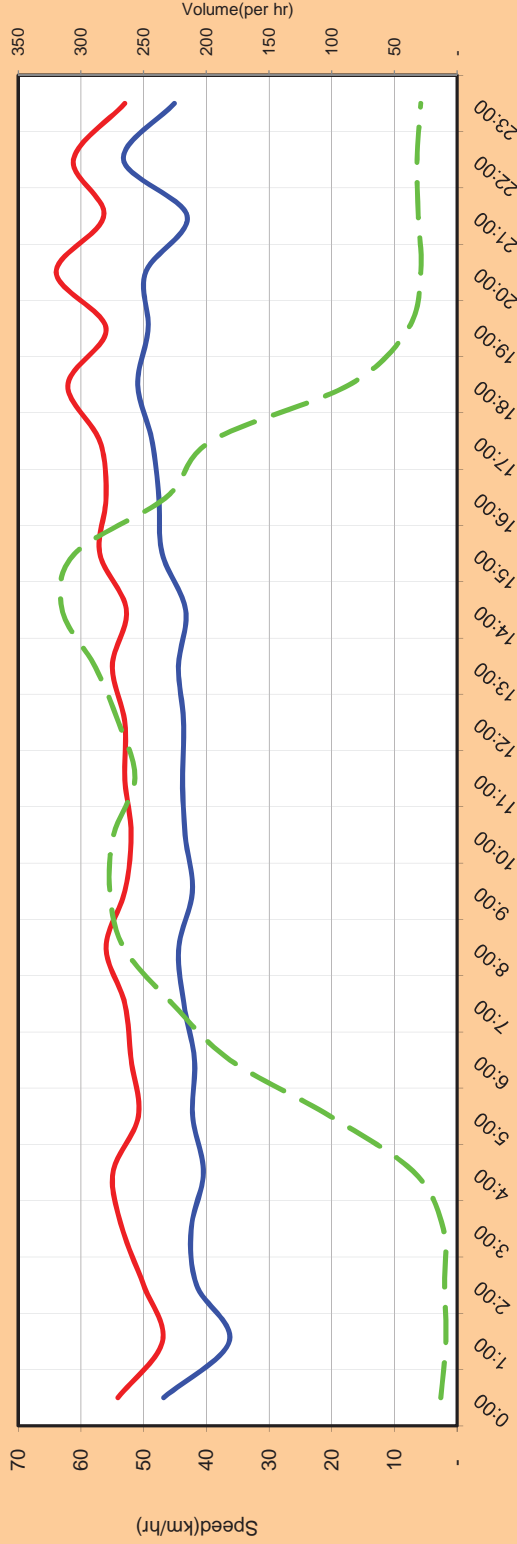
Mid-Block

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period



# Volume & Speed Data

All Vehicles: 44.7  
 Ave. Speed: 55.0  
 85%ile: 3.513  
 Vehicles/Day: 3.513  
 Direction: Two way  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Mid-Block

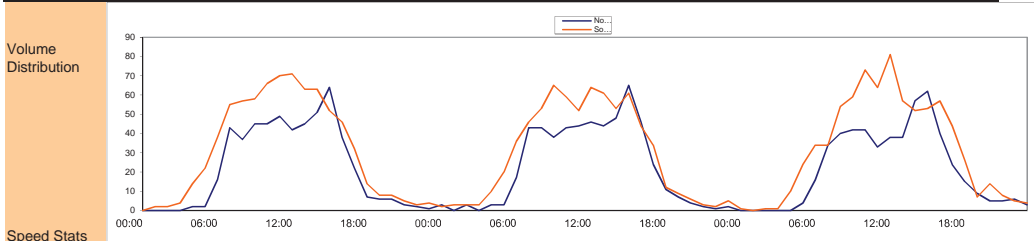
Gordon Parker Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period

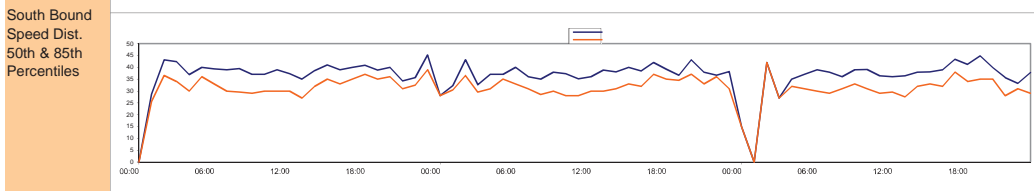
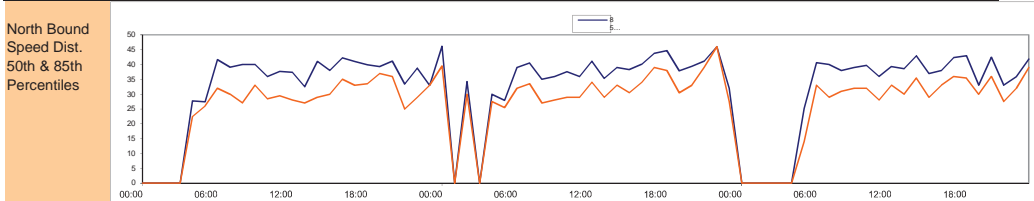
Violet Street South of Milpe

Suburb: Revesby  
 Siteid: 04  
 Speed Limit: 50

Date Record	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016			
	Interval (min)	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways
Short %	60	70.2%	73.6%	72.2%	74.3%	73.5%	73.8%	76.6%	74.4%	75.3%
Med %		26.0%	23.5%	24.6%	22.4%	22.8%	22.6%	21.1%	22.4%	21.9%
Long %		1.0%	1.8%	1.5%	0.7%	2.0%	1.4%	1.0%	2.5%	1.9%
7am-7pm Vol		488	647	1135	495	604	1099	465	654	1119
24Hr Vol		526	757	1283	540	706	1246	513	763	1276
85thile Km		39.0	39.0	39.0	39.0	38.0	39.0	40.0	39.0	39.0
Mean Spd		30.8	31.8	31.4	31.6	31.4	31.5	32.0	31.7	31.8
Std Dev		8.3	7.6	7.9	8.0	7.5	7.7	8.2	7.9	8.0
AM PK Interval Vol		49	70	119	44	65	103	42	73	115
AM Pk Factor		0.09	0.09	0.09	0.08	0.09	0.08	0.08	0.10	0.09
AM Pk 85%		37.7	39.0	39.0	36.0	38.0	37.6	39.0	39.1	39.8
AM PK starts		11:00	11:00	11:00	11:00	09:00	09:00	09:00	10:00	10:00
PM Pk Interval Vol		64	71	116	65	64	126	62	81	119
PM Pk Factor		0.12	0.09	0.09	0.12	0.09	0.10	0.12	0.11	0.09
PM Pk 85%		38.0	37.4	39.0	38.3	36.0	40.0	37.0	36.0	38.0
PM Pk starts		15:00	12:00	15:00	15:00	12:00	15:00	15:00	12:00	12:00



Speed Stats	Tue 15/03	Tue 15/03	Tue 15/03	Wed 16/03	Wed 16/03	Wed 16/03	Thu 17/03	Thu 17/03	Thu 17/03
>9Km	99%	100%	100%	100%	100%	100%	100%	99%	99%
>19Km	89%	93%	92%	92%	92%	92%	91%	93%	92%
>29Km	54%	60%	57%	58%	59%	59%	62%	60%	61%
>39Km	15%	13%	14%	14%	10%	12%	17%	13%	15%
>49Km	0%	1%	1%	1%	1%	1%	0%	0%	0%
>59Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>69Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	368	552	920	397	516	913	391	563	954
2: Car + Trailer	1	5	6	4	3	7	2	5	7
3: 2 axle truck	77	106	183	55	90	145	59	87	146
4: 3axle truck	47	61	108	52	59	111	44	67	111
5: 4 axle truck	13	11	24	14	12	26	5	17	22
6: 3 axle semi	0	0	0	0	0	0	0	0	0
7: 4 axle semi	0	1	1	0	1	1	0	0	0
8: 5 axle semi	0	1	1	1	0	1	3	2	5
9: 6 axle semi	5	11	16	3	11	14	2	16	18
10: 7/8 axle truck	0	1	1	0	1	1	0	1	1
11: Road Train	0	0	0	0	1	1	0	0	0
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	15	8	23	14	12	26	7	5	12
14: Motorcycle	11	12	23	13	8	21	14	12	26
Unpaired Axles	0	0	0	0	0	0	0	0	0

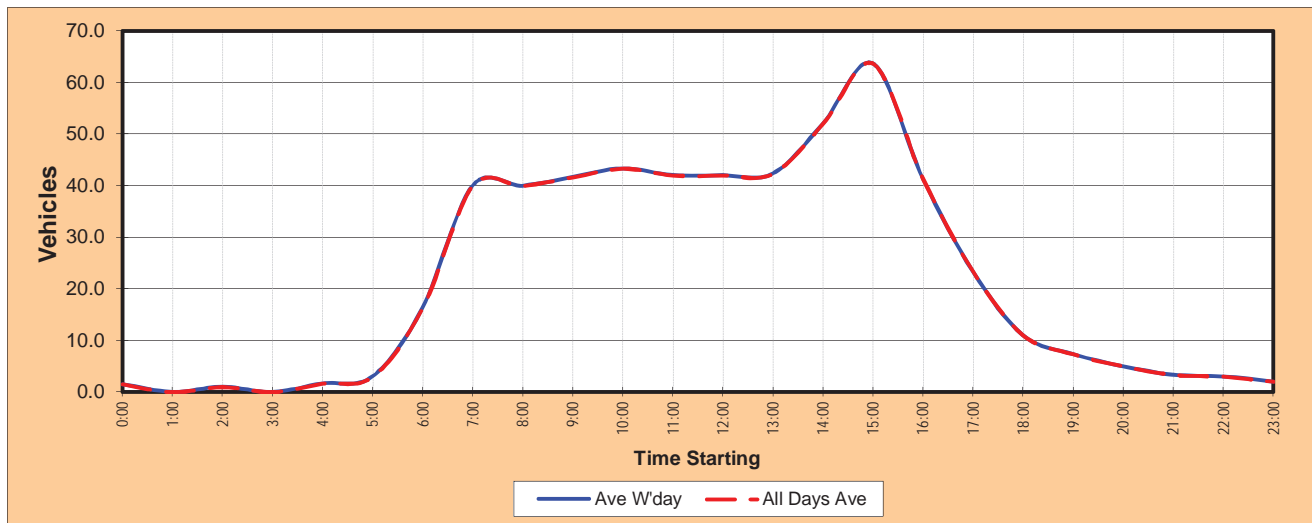
Pace Min	25.0	25.0	25.0	24.0	24.0	24.0	24.0	23.0	23.0
%Vol	65%	72%	69%	67%	74%	71%	66%	71%	68%

Definitions  
 85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Violet Street	<table border="1"> <tr> <td>Average Weekday</td> <td>527</td> </tr> <tr> <td>All Day Average</td> <td>527</td> </tr> <tr> <td>Weekday Heavy's</td> <td>24.0%</td> </tr> <tr> <td>All Day Heavy's</td> <td>24.0%</td> </tr> </table>	Average Weekday	527	All Day Average	527	Weekday Heavy's	24.0%	All Day Heavy's	24.0%
Average Weekday	527									
All Day Average	527									
Weekday Heavy's	24.0%									
All Day Heavy's	24.0%									
<b>Location</b>	South of Milperra Road									
<b>Site No.</b>	04									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	North Bound									

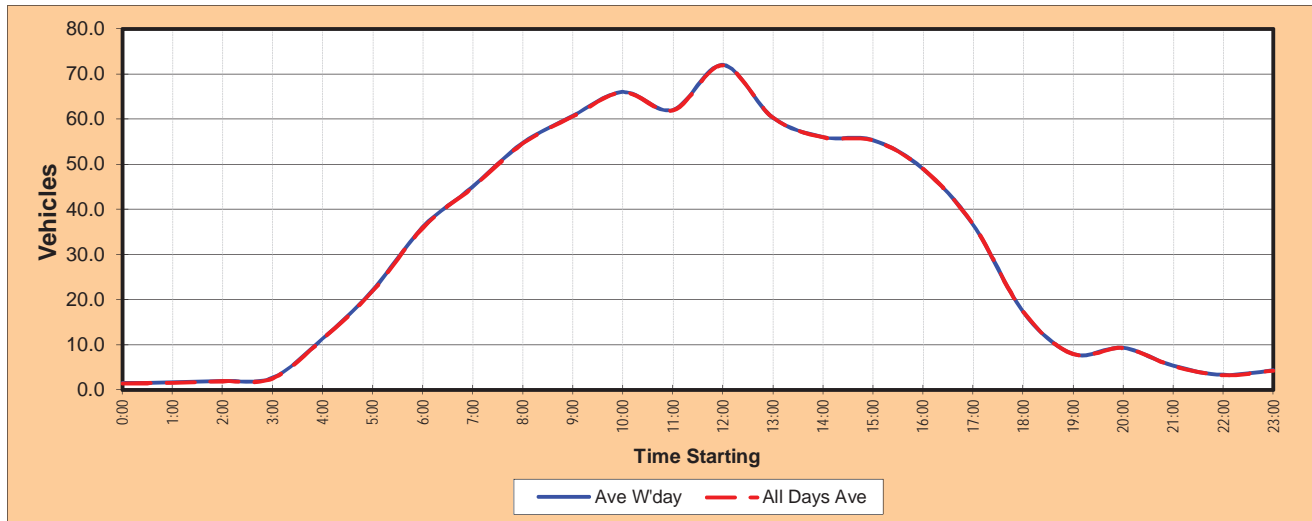
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>49</b>	<b>44</b>	<b>42</b>					
<b>PM Peak</b>		<b>64</b>	<b>65</b>	<b>62</b>					
0:00			3	0				2	2
1:00		0	0	0				0	0
2:00		0	3	0				1	1
3:00		0	0	0				0	0
4:00		2	3	0				2	2
5:00		2	3	4				3	3
6:00		16	17	16				16	16
7:00		43	43	34				40	40
8:00		37	43	40				40	40
9:00		45	38	42				42	42
10:00		45	43	42				43	43
11:00		49	44	33				42	42
12:00		42	46	38				42	42
13:00		45	44	38				42	42
14:00		51	48	57				52	52
15:00		64	65	62				64	64
16:00		38	46	40				41	41
17:00		22	24	24				23	23
18:00		7	11	15				11	11
19:00		6	7	9				7	7
20:00		6	4	5				5	5
21:00		3	2	5				3	3
22:00		2	1	6				3	3
23:00		1	2	3				2	2
<b>Total</b>		<b>526</b>	<b>540</b>	<b>513</b>				<b>527</b>	<b>527</b>
<b>% Heavies</b>		<b>27.0%</b>	<b>23.1%</b>	<b>22.0%</b>				<b>24.0%</b>	<b>24.0%</b>





<b>Road</b>	Violet Street	<b>Average Weekday</b>	743
<b>Location</b>	South of Milperra Road	<b>All Day Average</b>	743
<b>Site No.</b>	04	<b>Weekday Heavy's</b>	25.0%
<b>Start Date</b>	Tuesday 15/03/2016	<b>All Day Heavy's</b>	25.0%
<b>Direction</b>	South Bound		

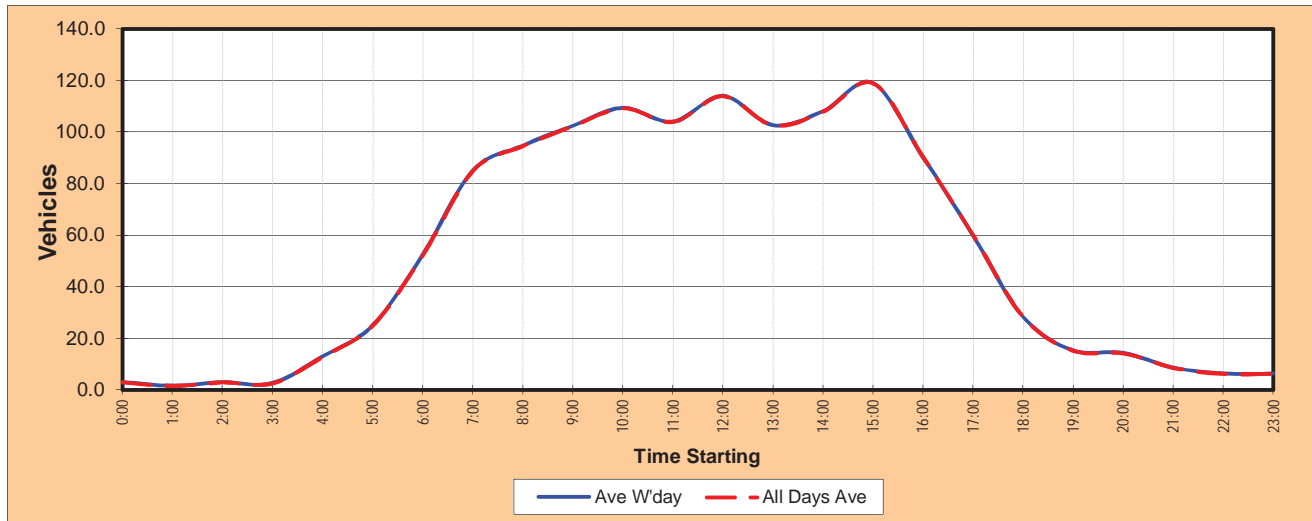
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>70</b>	<b>65</b>	<b>73</b>					
<b>PM Peak</b>		<b>71</b>	<b>64</b>	<b>81</b>					
0:00			2	1				2	2
1:00		2	3	0				2	2
2:00		2	3	1				2	2
3:00		4	3	1				3	3
4:00		14	10	10				11	11
5:00		22	20	24				22	22
6:00		38	36	34				36	36
7:00		55	46	34				45	45
8:00		57	53	54				55	55
9:00		58	65	59				61	61
10:00		66	59	73				66	66
11:00		70	52	64				62	62
12:00		71	64	81				72	72
13:00		63	61	57				60	60
14:00		63	53	52				56	56
15:00		52	61	53				55	55
16:00		46	44	57				49	49
17:00		32	34	44				37	37
18:00		14	12	26				17	17
19:00		8	9	7				8	8
20:00		8	6	14				9	9
21:00		5	3	8				5	5
22:00		3	2	5				3	3
23:00		4	5	4				4	4
<b>Total</b>		<b>757</b>	<b>706</b>	<b>763</b>				<b>743</b>	<b>743</b>
<b>% Heavies</b>		<b>25.4%</b>	<b>24.8%</b>	<b>24.9%</b>				<b>25.0%</b>	<b>25.0%</b>





<b>Road</b>	Violet Street	<table border="1"> <tr> <td>Average Weekday</td> <td>1269</td> </tr> <tr> <td>All Day Average</td> <td>1269</td> </tr> <tr> <td>Weekday Heavy's</td> <td>24.6%</td> </tr> <tr> <td>All Day Heavy's</td> <td>24.6%</td> </tr> </table>	Average Weekday	1269	All Day Average	1269	Weekday Heavy's	24.6%	All Day Heavy's	24.6%
Average Weekday	1269									
All Day Average	1269									
Weekday Heavy's	24.6%									
All Day Heavy's	24.6%									
<b>Location</b>	South of Milperra Road									
<b>Site No.</b>	04									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>119</b>	<b>103</b>	<b>115</b>					
<b>PM Peak</b>		<b>116</b>	<b>126</b>	<b>119</b>					
0:00			5	1				3	3
1:00		2	3	0				2	2
2:00		2	6	1				3	3
3:00		4	3	1				3	3
4:00		16	13	10				13	13
5:00		24	23	28				25	25
6:00		54	53	50				52	52
7:00		98	89	68				85	85
8:00		94	96	94				95	95
9:00		103	103	101				102	102
10:00		111	102	115				109	109
11:00		119	96	97				104	104
12:00		113	110	119				114	114
13:00		108	105	95				103	103
14:00		114	101	109				108	108
15:00		116	126	115				119	119
16:00		84	90	97				90	90
17:00		54	58	68				60	60
18:00		21	23	41				28	28
19:00		14	16	16				15	15
20:00		14	10	19				14	14
21:00		8	5	13				9	9
22:00		5	3	11				6	6
23:00		5	7	7				6	6
<b>Total</b>		<b>1283</b>	<b>1246</b>	<b>1276</b>				<b>1269</b>	<b>1269</b>
<b>% Heavies</b>		<b>26.0%</b>	<b>24.1%</b>	<b>23.7%</b>				<b>24.6%</b>	<b>24.6%</b>

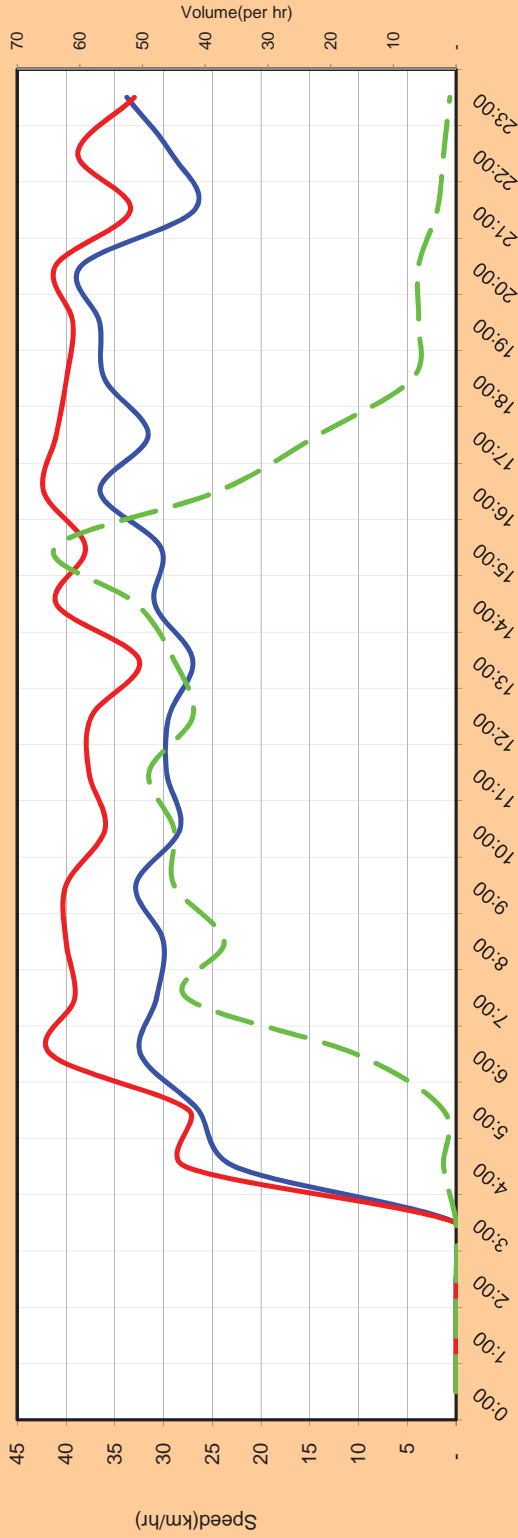




# Volume & Speed Data

All Vehicles: 30.8  
 Ave. Speed: 39.0  
 85%ile: 5.26  
 Vehicles/Day: 5.26

Direction: North B<sup>C</sup> North Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

South of Millperra Road

Violet Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: 31.6  
 Ave. Speed: 39.0  
 85%ile: 5.40  
 Vehicles/Day: 5.40

Direction: North Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

South of Millperra Road

Violet Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: 31.8  
 Ave. Speed: 39.0  
 85%ile: 757  
 Vehicles/Day: 757

Direction: South Bk South Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

South of Millperra Road

Violet Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: 31.4  
 Ave. Speed: 38.0  
 85%ile: 706  
 Vehicles/Day: 706

Direction: South Bk South Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

South of Millperra Road

Violet Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: **Two way** Direction: **Two ways**  
 Ave. Speed: **31.4**  
 85%ile: **39.0** Day: **Tue**  
 Vehicles/Day: **1,283** Week: **Current**



Tue 15/03/2016

South of Millperra Road

Violet Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles  
Ave. Speed: 31.5  
Direction: Two way  
85%ile: 39.0  
Day: Wed  
Vehicles/Day: 1,246  
Week: Current



Wed 16/03/2016

South of Millperra Road

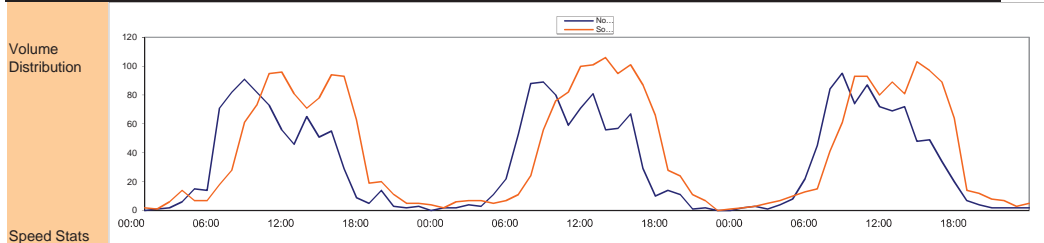
Violet Street

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period

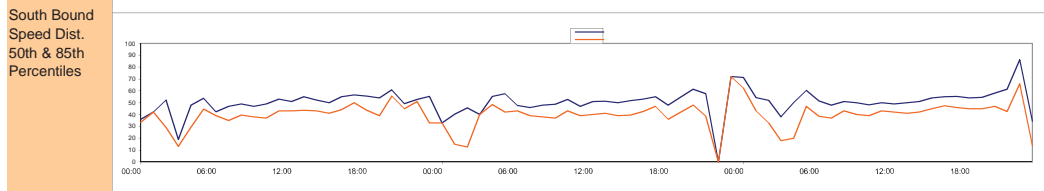
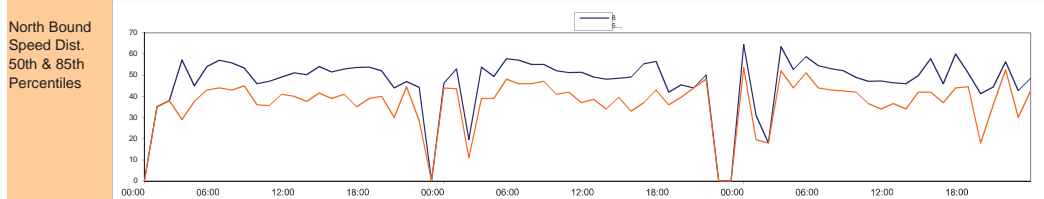
Violet Street North of Carri

Suburb Revesby  
 Sited 5  
 Speed Limit 50

Date Record Interval (min)	Tuesday 22/03/2016			Wednesday 23/03/2016			Thursday 24/03/2016			
	60	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways
Short %		73.8%	75.6%	74.8%	73.5%	73.7%	73.6%	69.7%	71.9%	70.9%
Med %		21.8%	20.9%	21.3%	21.9%	22.5%	22.2%	25.5%	24.8%	25.1%
Long %		2.8%	1.9%	2.3%	2.7%	2.1%	2.4%	3.7%	2.5%	3.1%
7am-7pm Vol		644	852	1496	701	922	1623	711	905	1616
24Hr Vol		775	952	1727	812	1010	1822	808	995	1803
85thile Km		52.0	53.0	53.0	52.0	52.0	52.0	51.8	52.0	52.0
Mean Spd		40.0	41.5	40.8	41.1	40.9	41.0	39.3	41.9	40.7
Std Dev		12.5	11.7	12.1	12.3	11.6	11.9	13.4	12.1	12.7
AM PK Interval Vol		91	96	168	89	100	171	95	93	180
AM Pk Factor		0.12	0.10	0.10	0.11	0.10	0.09	0.12	0.09	0.10
AM Pk 85%		53.4	53.0	48.8	55.0	47.0	49.4	52.0	50.1	48.0
AM PK starts		08:00	11:00	10:00	08:00	11:00	11:00	08:00	09:00	10:00
PM Pk Interval Vol		65	94	149	81	106	182	72	103	158
PM Pk Factor		0.08	0.10	0.09	0.10	0.10	0.10	0.09	0.10	0.09
PM Pk 85%		50.3	50.0	50.0	49.0	51.1	49.7	46.0	51.0	49.0
PM Pk starts		13:00	15:00	15:00	12:00	13:00	12:00	13:00	14:00	12:00



Speed Stats	Tue 22/03	Tue 22/03	Tue 22/03	Wed 23/03	Wed 23/03	Wed 23/03	Thu 24/03	Thu 24/03	Thu 24/03
>9Km	99%	99%	99%	99%	99%	99%	98%	99%	98%
>19Km	92%	94%	93%	94%	95%	95%	89%	94%	92%
>29Km	79%	84%	82%	82%	85%	83%	77%	85%	81%
>39Km	52%	59%	56%	58%	55%	57%	53%	60%	57%
>49Km	21%	23%	22%	24%	20%	22%	20%	23%	22%
>59Km	4%	4%	4%	4%	4%	4%	4%	4%	4%
>69Km	0%	0%	0%	0%	0%	0%	1%	1%	1%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	571	712	1,283	594	741	1,335	555	702	1,257
2: Car + Trailer	1	8	9	3	3	6	8	13	21
3: 2 axle truck	122	154	276	121	164	285	150	188	338
4: 3axle truck	34	35	69	33	56	89	40	52	92
5: 4 axle truck	13	10	23	24	7	31	16	7	23
6: 3 axle semi	1	1	2	1	1	2	1	1	2
7: 4 axle semi	4	0	4	2	0	2	3	1	4
8: 5 axle semi	3	6	9	2	3	5	3	1	4
9: 6 axle semi	10	10	20	15	14	29	17	16	33
10: 7/8 axle truck	4	1	5	2	3	5	5	6	11
11: Road Train	0	0	0	0	0	0	1	0	1
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	12	15	27	15	18	33	9	8	17
14: Motorcycle	48	59	107	61	55	116	44	50	94
Unpaired Axles	0	0	0	0	0	0	0	0	0

Pace Min	34.0	35.0	35.0	36.0	33.0	35.0	33.0	37.0	37.0
%Vol	50%	54%	52%	51%	55%	52%	49%	56%	53%

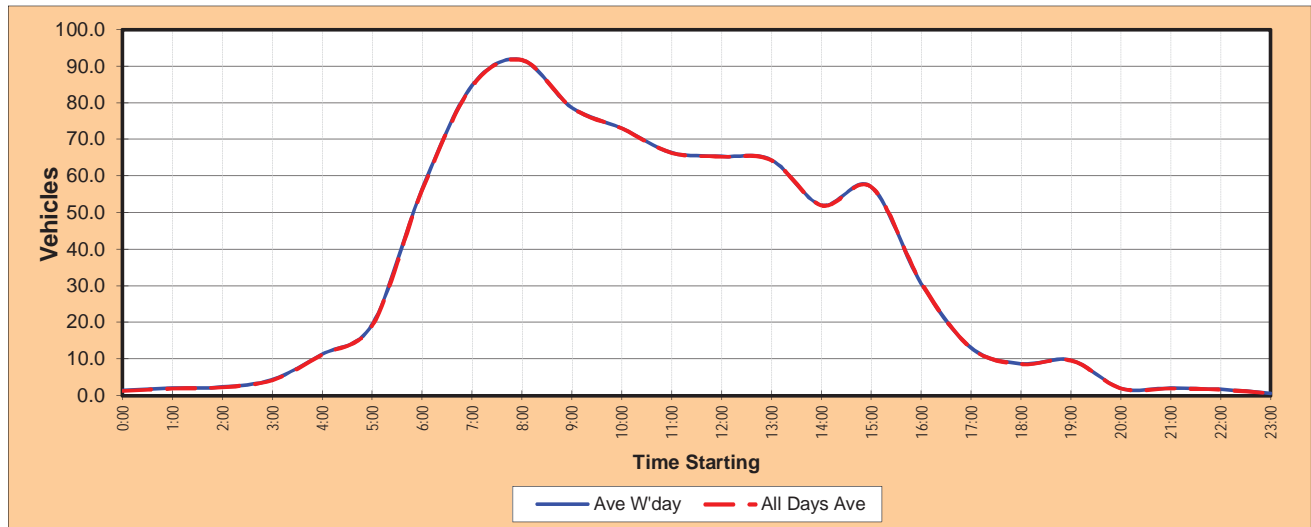
Definitions

85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Violet Street	<table border="1"> <tr> <td>Average Weekday</td> <td>798</td> </tr> <tr> <td>All Day Average</td> <td>798</td> </tr> <tr> <td>Weekday Heavy's</td> <td>26.2%</td> </tr> <tr> <td>All Day Heavy's</td> <td>26.2%</td> </tr> </table>	Average Weekday	798	All Day Average	798	Weekday Heavy's	26.2%	All Day Heavy's	26.2%
Average Weekday	798									
All Day Average	798									
Weekday Heavy's	26.2%									
All Day Heavy's	26.2%									
<b>Location</b>	North of Carrington Street									
<b>Site No.</b>	5									
<b>Start Date</b>	Tuesday 22/03/2016									
<b>Direction</b>	North Bound									

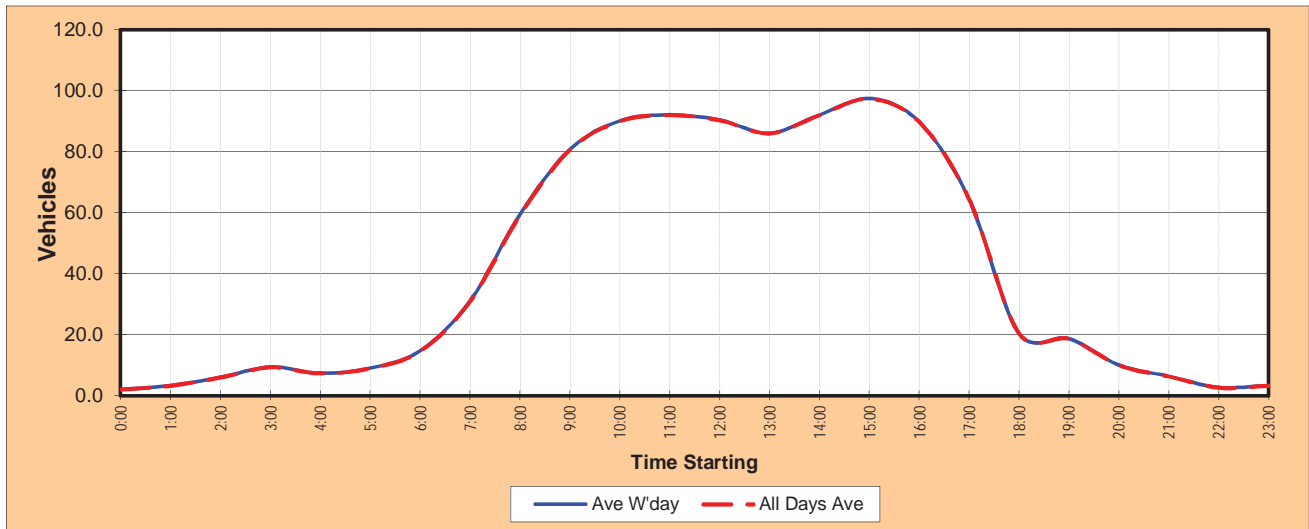
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 22-Mar	Wed 23-Mar	Thu 24-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>91</b>	<b>89</b>	<b>95</b>					
<b>PM Peak</b>		<b>65</b>	<b>81</b>	<b>72</b>					
0:00		0	2	2				1	1
1:00		1	2	3				2	2
2:00		2	4	1				2	2
3:00		6	3	4				4	4
4:00		15	11	8				11	11
5:00		14	22	22				19	19
6:00		71	53	45				56	56
7:00		82	88	84				85	85
8:00		91	89	95				92	92
9:00		82	80	74				79	79
10:00		73	59	87				73	73
11:00		56	71	72				66	66
12:00		46	81	69				65	65
13:00		65	56	72				64	64
14:00		51	57	48				52	52
15:00		55	67	49				57	57
16:00		29	29	34				31	31
17:00		9	10	20				13	13
18:00		5	14	7				9	9
19:00		14	11	4				10	10
20:00		3	1	2				2	2
21:00		2	2	2				2	2
22:00		3	0	2				2	2
23:00		0	0	2				1	1
<b>Total</b>		<b>775</b>	<b>812</b>	<b>808</b>				<b>798</b>	<b>798</b>
<b>% Heavies</b>		<b>24.6%</b>	<b>24.6%</b>	<b>29.2%</b>				<b>26.2%</b>	<b>26.2%</b>





<b>Road</b>	Violet Street	<table border="1"> <tr> <td>Average Weekday</td> <td>986</td> </tr> <tr> <td>All Day Average</td> <td>986</td> </tr> <tr> <td>Weekday Heavy's</td> <td>24.9%</td> </tr> <tr> <td>All Day Heavy's</td> <td>24.9%</td> </tr> </table>	Average Weekday	986	All Day Average	986	Weekday Heavy's	24.9%	All Day Heavy's	24.9%
Average Weekday	986									
All Day Average	986									
Weekday Heavy's	24.9%									
All Day Heavy's	24.9%									
<b>Location</b>	North of Carrington Street									
<b>Site No.</b>	5									
<b>Start Date</b>	Tuesday 22/03/2016									
<b>Direction</b>	South Bound									

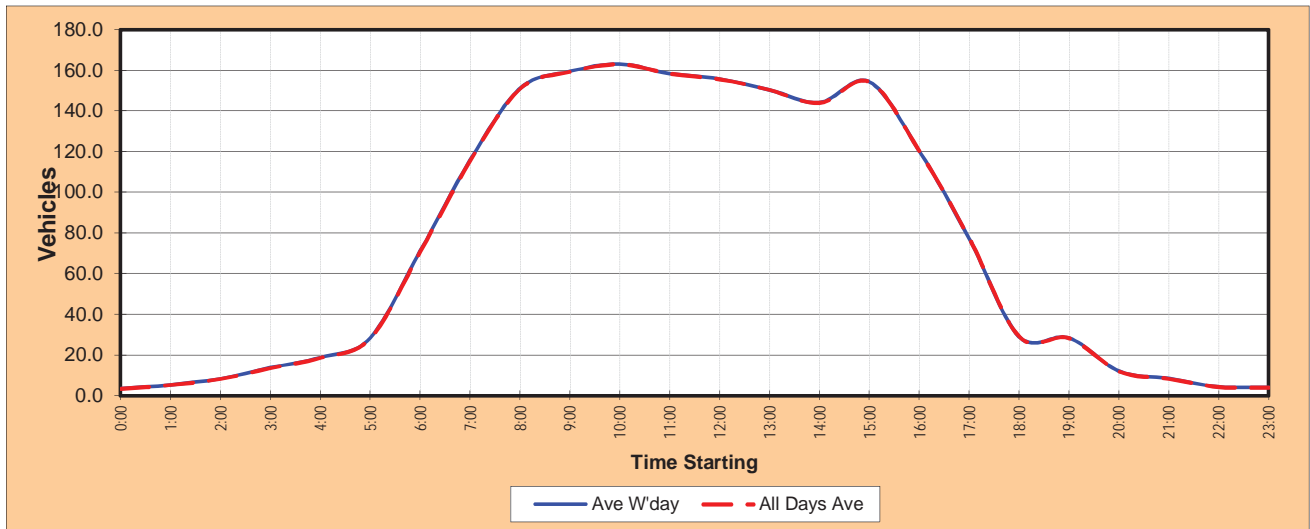
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 22-Mar	Wed 23-Mar	Thu 24-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>96</b>	<b>100</b>	<b>93</b>					
<b>PM Peak</b>		<b>94</b>	<b>106</b>	<b>103</b>					
0:00		2	2	2				2	2
1:00		1	6	3				3	3
2:00		6	7	5				6	6
3:00		14	7	7				9	9
4:00		7	5	10				7	7
5:00		7	7	13				9	9
6:00		18	11	15				15	15
7:00		28	24	41				31	31
8:00		61	56	61				59	59
9:00		73	76	93				81	81
10:00		95	82	93				90	90
11:00		96	100	80				92	92
12:00		81	101	89				90	90
13:00		71	106	81				86	86
14:00		78	95	103				92	92
15:00		94	101	97				97	97
16:00		93	87	89				90	90
17:00		63	66	64				64	64
18:00		19	28	14				20	20
19:00		20	24	12				19	19
20:00		11	11	8				10	10
21:00		5	7	7				6	6
22:00		5	0	3				3	3
23:00		4	1	5				3	3
<b>Total</b>		<b>952</b>	<b>1010</b>	<b>995</b>				<b>986</b>	<b>986</b>
<b>% Heavies</b>		<b>22.8%</b>	<b>24.6%</b>	<b>27.3%</b>				<b>24.9%</b>	<b>24.9%</b>





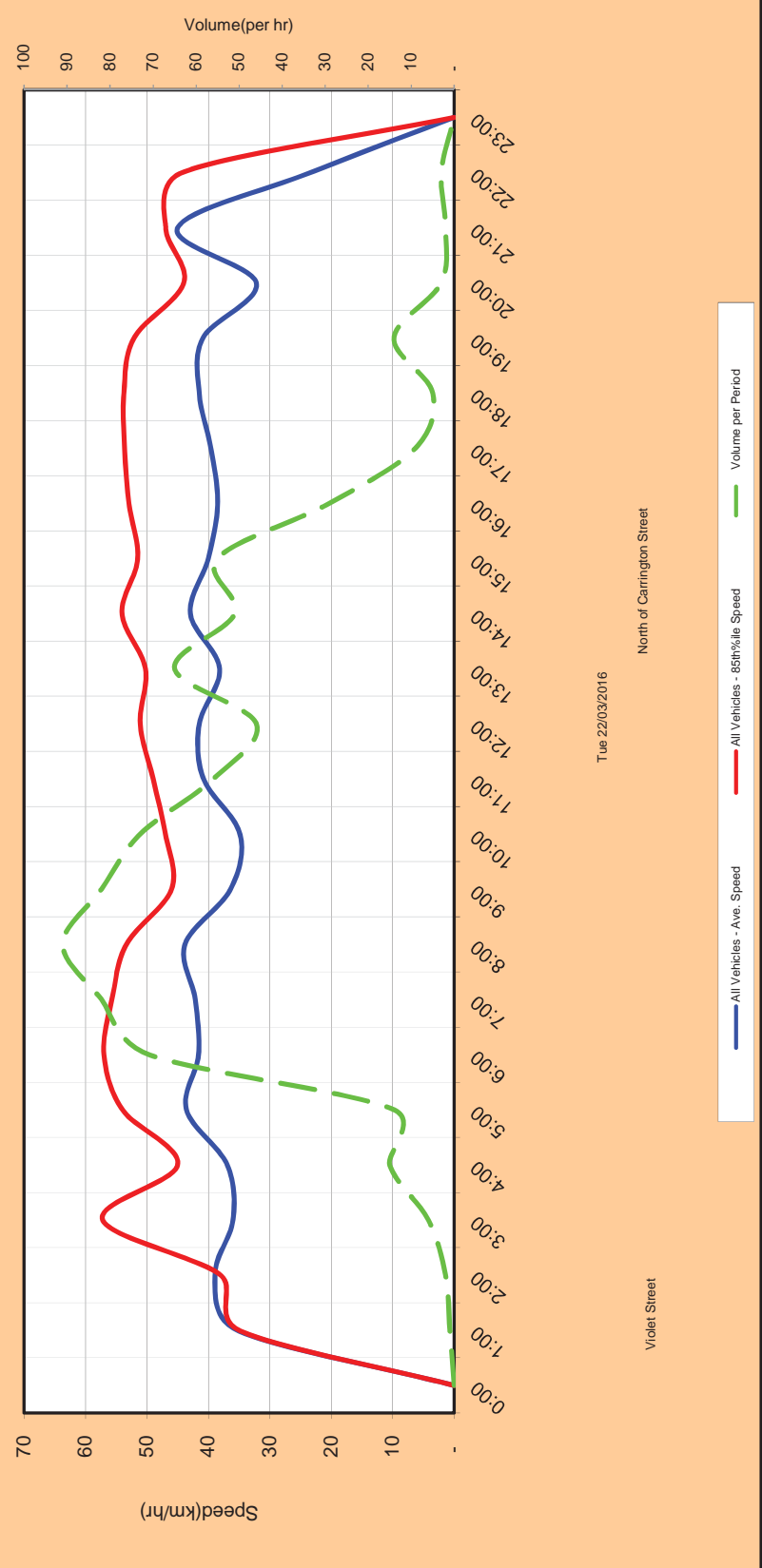
<b>Road</b>	Violet Street	<table border="1"> <tr> <td>Average Weekday</td> <td>1784</td> </tr> <tr> <td>All Day Average</td> <td>1784</td> </tr> <tr> <td>Weekday Heavy's</td> <td>25.5%</td> </tr> <tr> <td>All Day Heavy's</td> <td>25.5%</td> </tr> </table>	Average Weekday	1784	All Day Average	1784	Weekday Heavy's	25.5%	All Day Heavy's	25.5%
Average Weekday	1784									
All Day Average	1784									
Weekday Heavy's	25.5%									
All Day Heavy's	25.5%									
<b>Location</b>	North of Carrington Street									
<b>Site No.</b>	5									
<b>Start Date</b>	Tuesday 22/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 22-Mar	Wed 23-Mar	Thu 24-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>168</b>	<b>171</b>	<b>180</b>					
<b>PM Peak</b>		<b>149</b>	<b>182</b>	<b>158</b>					
0:00		2	4	4				3	3
1:00		2	8	6				5	5
2:00		8	11	6				8	8
3:00		20	10	11				14	14
4:00		22	16	18				19	19
5:00		21	29	35				28	28
6:00		89	64	60				71	71
7:00		110	112	125				116	116
8:00		152	145	156				151	151
9:00		155	156	167				159	159
10:00		168	141	180				163	163
11:00		152	171	152				158	158
12:00		127	182	158				156	156
13:00		136	162	153				150	150
14:00		129	152	151				144	144
15:00		149	168	146				154	154
16:00		122	116	123				120	120
17:00		72	76	84				77	77
18:00		24	42	21				29	29
19:00		34	35	16				28	28
20:00		14	12	10				12	12
21:00		7	9	9				8	8
22:00		8	0	5				4	4
23:00		4	1	7				4	4
<b>Total</b>		<b>1727</b>	<b>1822</b>	<b>1803</b>				<b>1784</b>	<b>1784</b>
<b>% Heavies</b>		<b>23.6%</b>	<b>24.6%</b>	<b>28.2%</b>				<b>25.5%</b>	<b>25.5%</b>



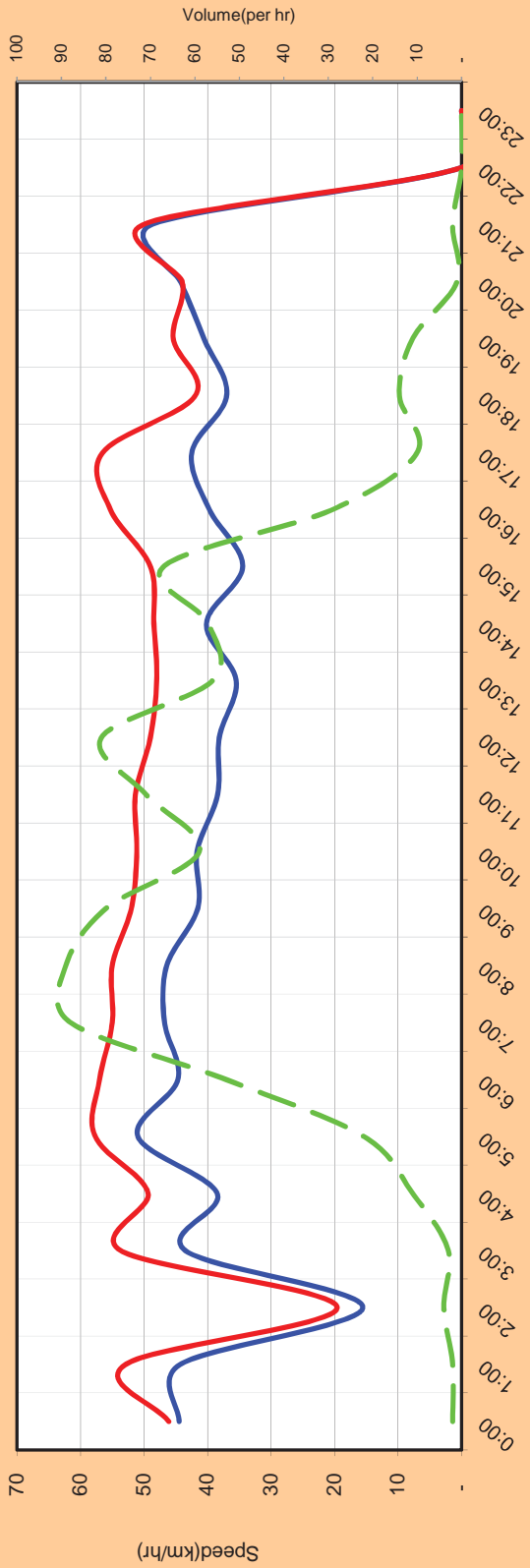
# Volume & Speed Data

All Vehicles: North Bou North Bound  
 Ave. Speed: 40.0  
 85%ile: 52.0  
 Vehicles/Day: 775  
 Week: Current



# Volume & Speed Data

All Vehicles: North Bou North Bound  
 Ave. Speed: 41.1  
 85%ile: 52.0  
 Vehicles/Day: 812  
 Week: Current



Wed 23/03/2016

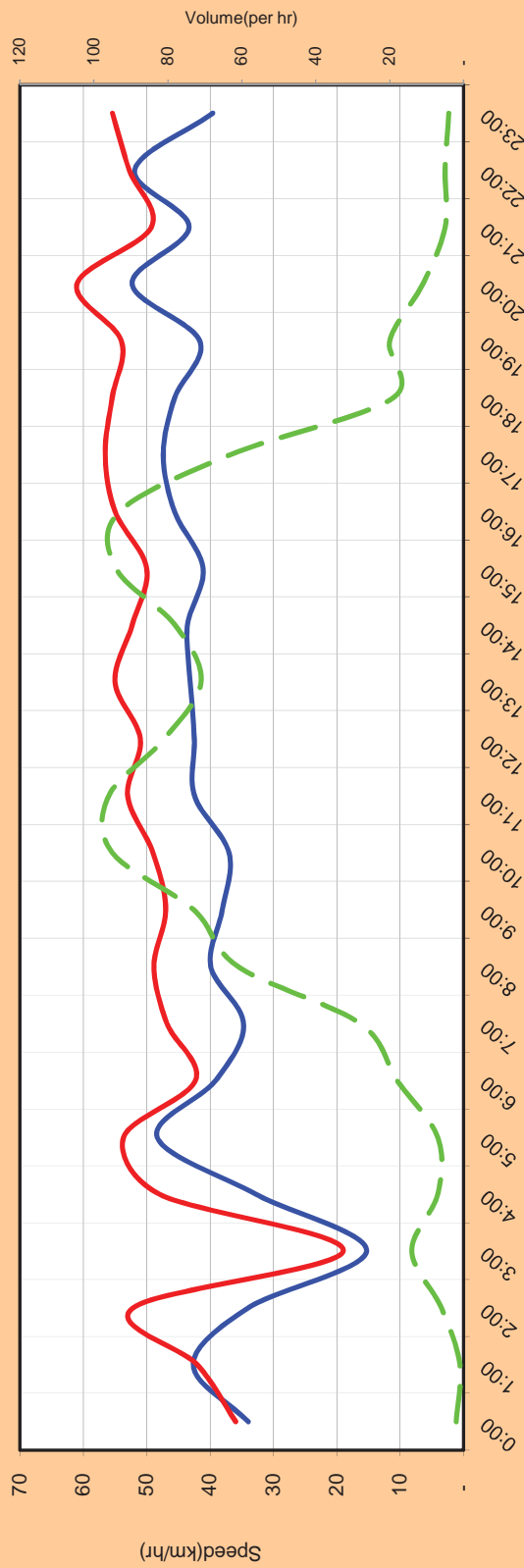
North of Carrington Street

Violet Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period

# Volume & Speed Data

All Vehicles:  Direction:  Ave. Speed  
 85%ile:  Day:  Week:  Current  
 Vehicles/Day:



Tue 22/03/2016

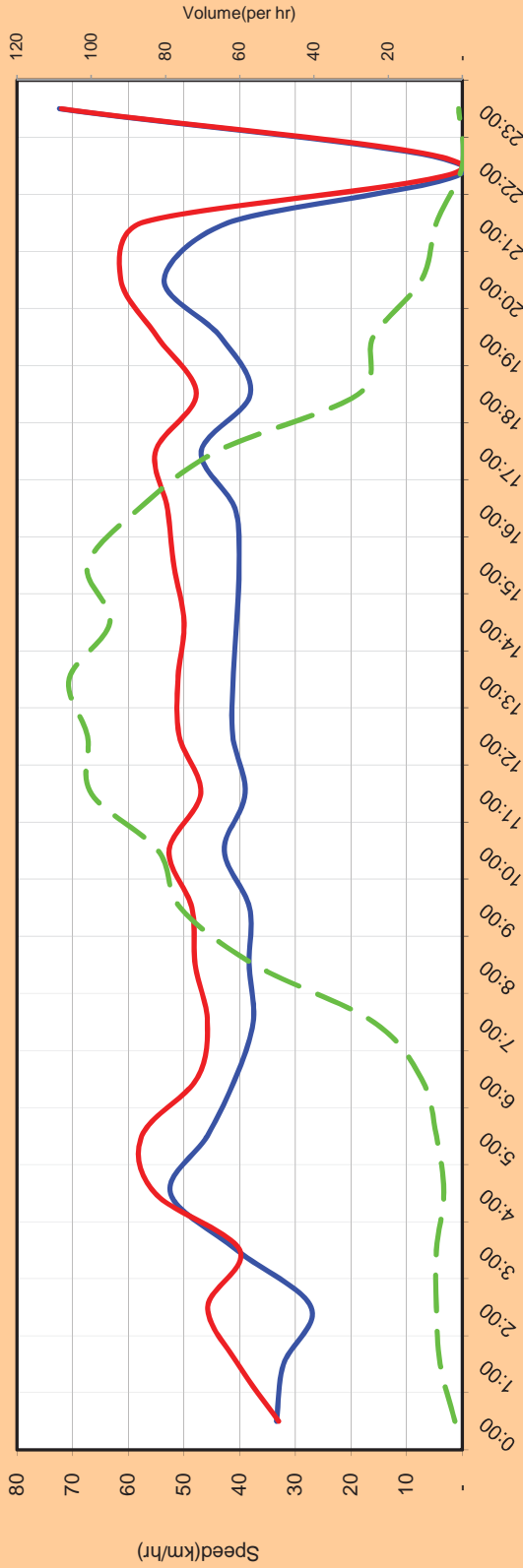
North of Carrington Street

Violet Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period

# Volume & Speed Data

All Vehicles Direction: South Bou. South Bound  
 Ave. Speed 40.9  
 85%ile 52.0 Day: Wed  
 Vehicles/Day 1,010 Week: Current



Wed 23/03/2016

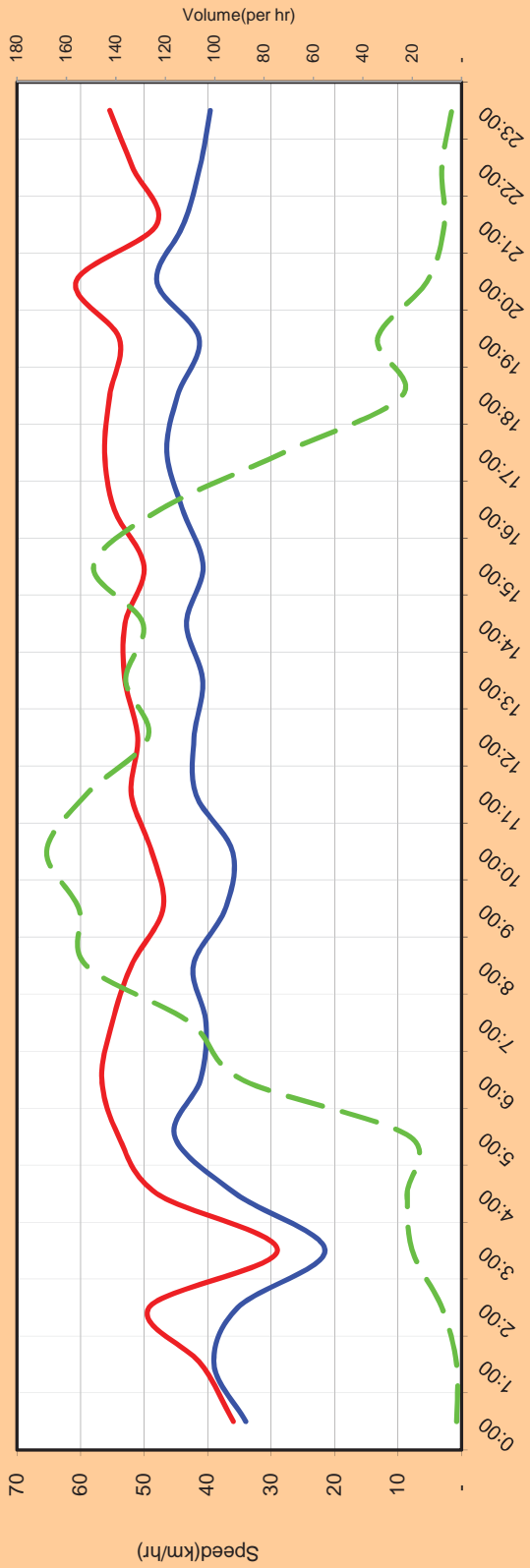
North of Carrington Street

Violet Street

- All Vehicles - Ave. Speed
- All Vehicles - 85th%ile Speed
- - - Volume per Period

# Volume & Speed Data

All Vehicles: Two ways Two ways  
 Ave. Speed: 40.8  
 85%ile: 53.0  
 Vehicles/Day: 1,727  
 Week: Current Current



Tue 22/03/2016

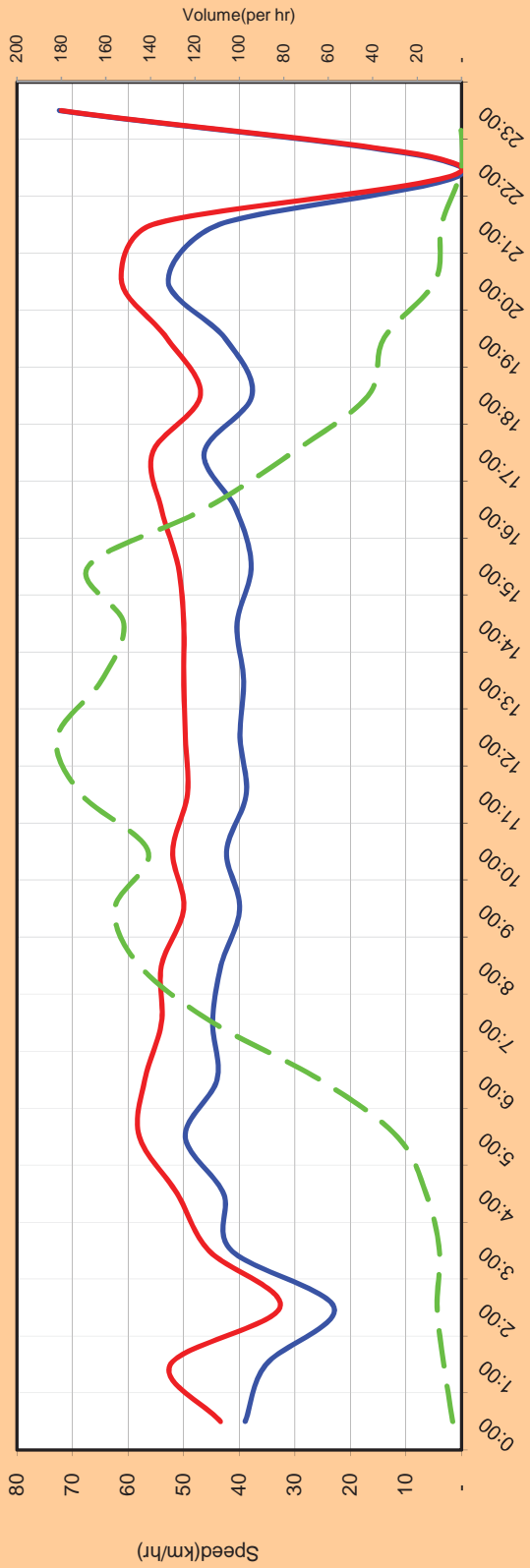
North of Carrington Street

Violet Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period

# Volume & Speed Data

All Vehicles Direction: Two ways Two ways  
 Ave. Speed 41.0  
 85%ile 52.0  
 Vehicles/Day 1,822  
 Week: Current Day: Wed  
 Week: Current Week: Current



Wed 23/03/2016

North of Carrington Street

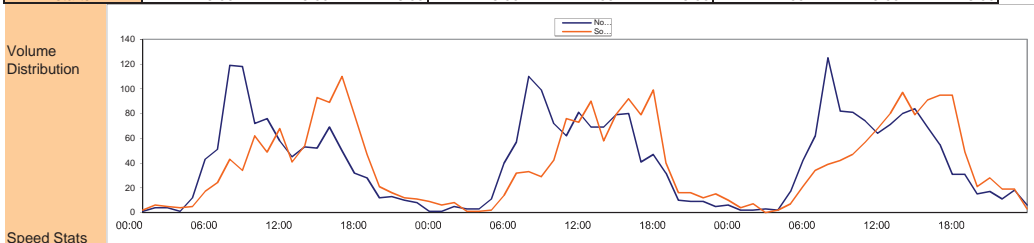
Violer Street

— All Vehicles - Ave. Speed  
— All Vehicles - 85%ile Speed  
- - - Volume per Period

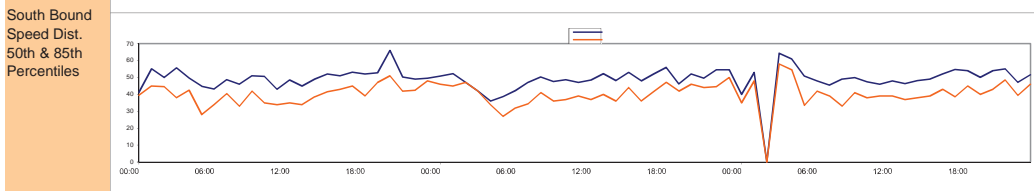
Daisy Street Mid-Block

Suburb: Revesby  
 Sited: 06  
 Speed Limit: 50

Date Record Interval (min)	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016			
	60	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways
Short %	86.8%	86.7%	86.7%	86.7%	86.0%	86.7%	86.3%	85.3%	86.7%	86.0%
Med %	10.2%	10.4%	10.3%	10.3%	10.9%	11.5%	11.2%	11.7%	11.3%	11.5%
Long %	2.4%	2.0%	2.2%	2.2%	1.7%	1.2%	1.5%	2.1%	1.1%	1.6%
7am-7pm Vol	772	769	1541	1541	841	790	1631	847	839	1686
24Hr Vol	932	901	1833	1833	1000	923	1923	1044	1004	2048
85thile Km	53.0	51.0	52.0	52.0	51.0	51.0	51.0	52.0	50.4	51.0
Mean Spd	42.5	38.8	40.7	40.7	40.6	39.3	40.0	40.4	38.7	39.6
Std Dev	12.5	13.2	13.0	13.0	11.9	12.3	12.1	12.4	13.3	12.9
AM PK Interval Vol	119	68	162	162	110	76	154	125	68	164
AM Pk Factor	0.13	0.08	0.09	0.09	0.11	0.08	0.08	0.12	0.07	0.08
AM Pk 85%	53.2	43.0	53.0	53.0	52.0	48.6	49.0	50.0	46.0	50.0
AM PK starts	07:00	11:00	07:00	07:00	07:00	10:00	11:00	07:00	11:00	07:00
PM Pk Interval Vol	69	110	160	160	80	99	172	84	97	177
PM Pk Factor	0.07	0.12	0.09	0.09	0.08	0.11	0.09	0.08	0.10	0.09
PM Pk 85%	50.7	51.0	53.0	53.0	55.0	52.0	53.2	51.0	46.5	47.0
PM Pk starts	15:00	16:00	16:00	16:00	15:00	17:00	15:00	14:00	13:00	13:00



Speed Stats	Tue 15/03	Tue 15/03	Tue 15/03	Wed 16/03	Wed 16/03	Wed 16/03	Thu 17/03	Thu 17/03	Thu 17/03
>9Km	99%	97%	98%	99%	98%	98%	98%	97%	97%
>19Km	95%	91%	93%	94%	93%	93%	93%	91%	92%
>29Km	86%	76%	81%	82%	80%	81%	81%	76%	79%
>39Km	62%	52%	57%	57%	51%	54%	56%	51%	54%
>49Km	26%	18%	22%	22%	18%	20%	22%	18%	20%
>59Km	6%	3%	5%	3%	3%	3%	3%	4%	4%
>69Km	2%	1%	1%	0%	0%	0%	1%	0%	1%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	806	778	1,584	854	797	1,651	885	860	1,745
2: Car + Trailer	3	3	6	6	3	9	6	10	16
3: 2 axle truck	67	73	140	82	73	155	86	76	162
4: 3axle truck	21	15	36	20	26	46	24	22	46
5: 4 axle truck	7	6	13	7	7	14	12	15	27
6: 3 axle semi	0	1	1	1	0	1	4	0	4
7: 4 axle semi	0	0	0	1	0	1	1	0	1
8: 5 axle semi	3	1	4	1	1	2	1	1	2
9: 6 axle semi	18	16	34	14	10	24	15	8	23
10: 7/8 axle truck	1	0	1	0	0	0	1	2	3
11: Road Train	0	0	0	0	0	0	0	0	0
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	6	8	14	14	6	20	9	10	19
14: Motorcycle	38	49	87	38	58	96	42	83	125
Unpaired Axles	0	0	0	0	0	0	0	0	0

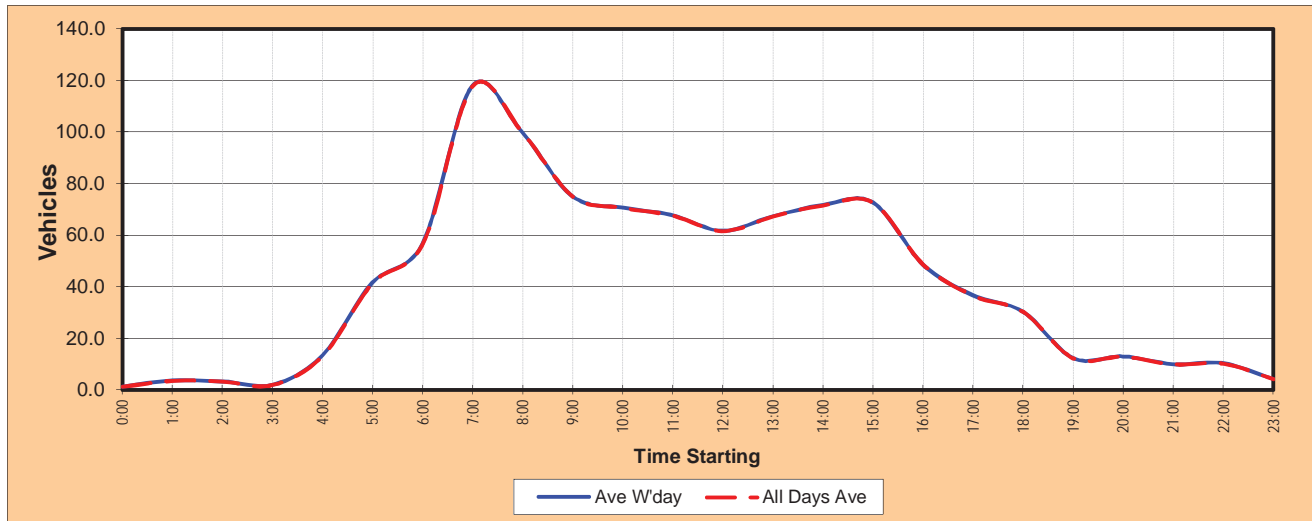
Pace Min	35.0	35.0	35.0	35.0	32.0	35.0	38.0	33.0	33.0
%Vol	52%	50%	51%	54%	53%	53%	51%	51%	51%

Definitions  
 85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Daisy Street	<table border="1"> <tr> <td>Average Weekday</td> <td>992</td> </tr> <tr> <td>All Day Average</td> <td>992</td> </tr> <tr> <td>Weekday Heavy's</td> <td>13.0%</td> </tr> <tr> <td>All Day Heavy's</td> <td>13.0%</td> </tr> </table>	Average Weekday	992	All Day Average	992	Weekday Heavy's	13.0%	All Day Heavy's	13.0%
Average Weekday	992									
All Day Average	992									
Weekday Heavy's	13.0%									
All Day Heavy's	13.0%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	06									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	North Bound									

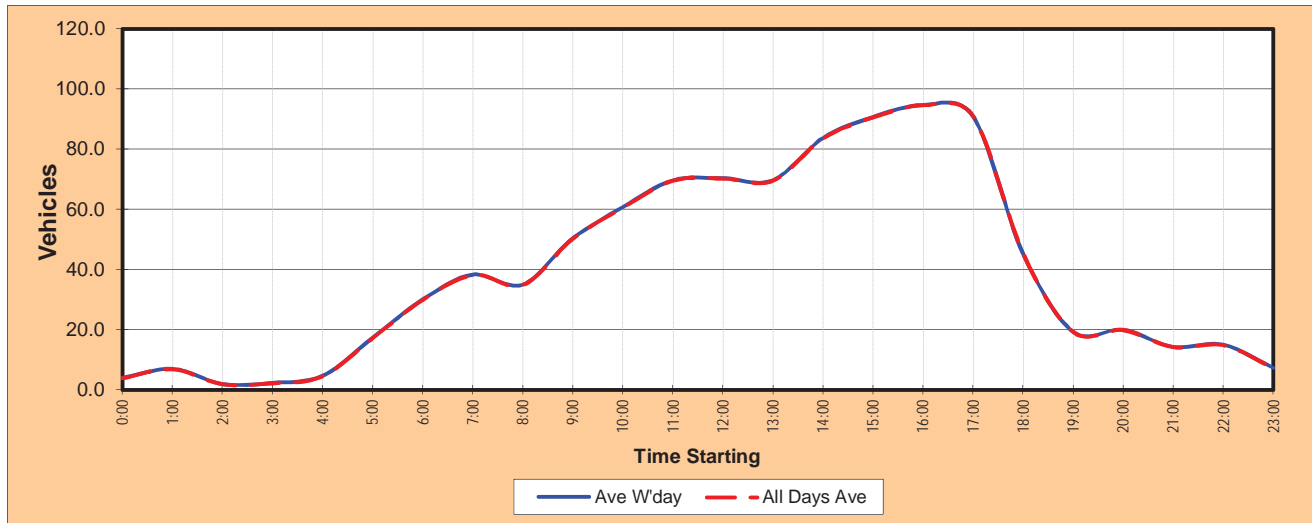
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>119</b>	<b>110</b>	<b>125</b>					
<b>PM Peak</b>		<b>69</b>	<b>80</b>	<b>84</b>					
0:00		1	1	2				1	1
1:00		4	5	2				4	4
2:00		4	3	3				3	3
3:00		1	3	2				2	2
4:00		12	11	17				13	13
5:00		43	40	42				42	42
6:00		51	57	62				57	57
7:00		119	110	125				118	118
8:00		118	99	82				100	100
9:00		72	72	81				75	75
10:00		76	62	74				71	71
11:00		58	81	64				68	68
12:00		45	69	71				62	62
13:00		53	69	80				67	67
14:00		52	79	84				72	72
15:00		69	80	69				73	73
16:00		50	41	55				49	49
17:00		32	47	31				37	37
18:00		28	32	31				30	30
19:00		12	10	15				12	12
20:00		13	9	17				13	13
21:00		10	9	11				10	10
22:00		8	5	18				10	10
23:00		1	6	6				4	4
<b>Total</b>		<b>932</b>	<b>1000</b>	<b>1044</b>				<b>992</b>	<b>992</b>
<b>% Heavies</b>		<b>12.6%</b>	<b>12.6%</b>	<b>13.8%</b>				<b>13.0%</b>	<b>13.0%</b>





<b>Road</b>	Daisy Street	<table border="1"> <tr> <td>Average Weekday</td> <td>943</td> </tr> <tr> <td>All Day Average</td> <td>943</td> </tr> <tr> <td>Weekday Heavy's</td> <td>12.5%</td> </tr> <tr> <td>All Day Heavy's</td> <td>12.5%</td> </tr> </table>	Average Weekday	943	All Day Average	943	Weekday Heavy's	12.5%	All Day Heavy's	12.5%
Average Weekday	943									
All Day Average	943									
Weekday Heavy's	12.5%									
All Day Heavy's	12.5%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	06									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	South Bound									

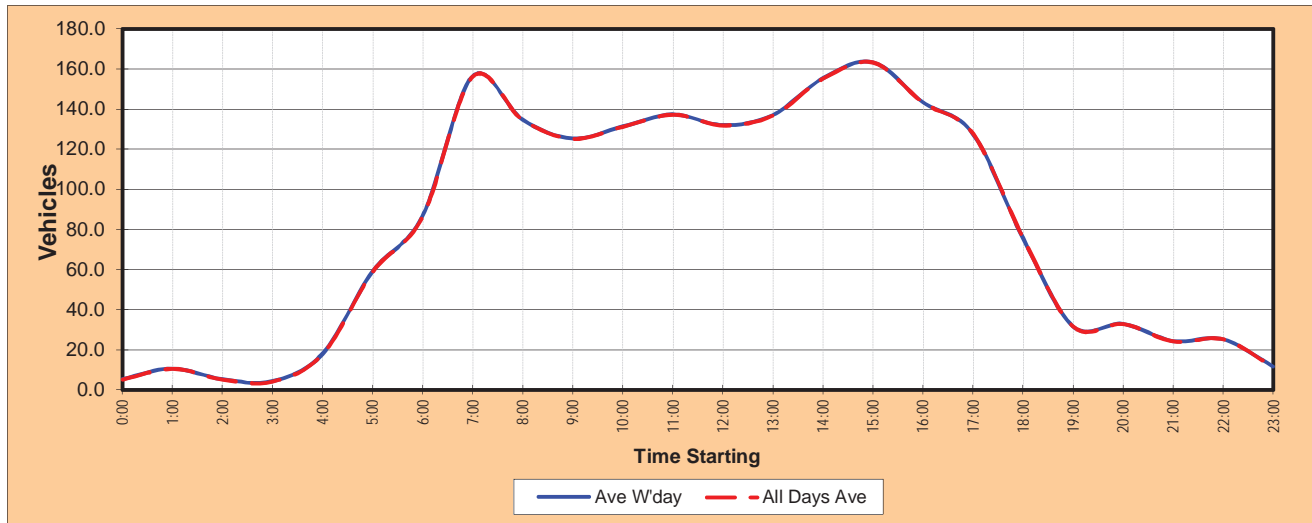
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>68</b>	<b>76</b>	<b>68</b>					
<b>PM Peak</b>		<b>110</b>	<b>99</b>	<b>97</b>					
0:00		2	6	4				4	4
1:00		6	8	7				7	7
2:00		5	1	0				2	2
3:00		4	1	2				2	2
4:00		5	2	7				5	5
5:00		17	14	21				17	17
6:00		24	32	34				30	30
7:00		43	33	39				38	38
8:00		34	29	42				35	35
9:00		62	42	47				50	50
10:00		49	76	57				61	61
11:00		68	73	68				70	70
12:00		41	90	80				70	70
13:00		54	58	97				70	70
14:00		93	79	79				84	84
15:00		89	92	91				91	91
16:00		110	79	95				95	95
17:00		79	99	95				91	91
18:00		47	40	49				45	45
19:00		21	16	21				19	19
20:00		16	16	28				20	20
21:00		12	12	19				14	14
22:00		11	15	19				15	15
23:00		9	10	3				7	7
<b>Total</b>		<b>901</b>	<b>923</b>	<b>1004</b>				<b>943</b>	<b>943</b>
<b>% Heavies</b>		<b>12.4%</b>	<b>12.7%</b>	<b>12.4%</b>				<b>12.5%</b>	<b>12.5%</b>





<b>Road</b>	Daisy Street	<table border="1"> <tr> <td>Average Weekday</td> <td>1935</td> </tr> <tr> <td>All Day Average</td> <td>1935</td> </tr> <tr> <td>Weekday Heavy's</td> <td>12.7%</td> </tr> <tr> <td>All Day Heavy's</td> <td>12.7%</td> </tr> </table>	Average Weekday	1935	All Day Average	1935	Weekday Heavy's	12.7%	All Day Heavy's	12.7%
Average Weekday	1935									
All Day Average	1935									
Weekday Heavy's	12.7%									
All Day Heavy's	12.7%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	06									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>162</b>	<b>154</b>	<b>164</b>					
<b>PM Peak</b>		<b>160</b>	<b>172</b>	<b>177</b>					
0:00		3	7	6				5	5
1:00		10	13	9				11	11
2:00		9	4	3				5	5
3:00		5	4	4				4	4
4:00		17	13	24				18	18
5:00		60	54	63				59	59
6:00		75	89	96				87	87
7:00		162	143	164				156	156
8:00		152	128	124				135	135
9:00		134	114	128				125	125
10:00		125	138	131				131	131
11:00		126	154	132				137	137
12:00		86	159	151				132	132
13:00		107	127	177				137	137
14:00		145	158	163				155	155
15:00		158	172	160				163	163
16:00		160	120	150				143	143
17:00		111	146	126				128	128
18:00		75	72	80				76	76
19:00		33	26	36				32	32
20:00		29	25	45				33	33
21:00		22	21	30				24	24
22:00		19	20	37				25	25
23:00		10	16	9				12	12
<b>Total</b>		<b>1833</b>	<b>1923</b>	<b>2048</b>				<b>1935</b>	<b>1935</b>
<b>% Heavies</b>		<b>12.5%</b>	<b>12.6%</b>	<b>13.1%</b>				<b>12.7%</b>	<b>12.7%</b>





# Volume & Speed Data

All Vehicles: North Bound  
 Ave. Speed: 42.5  
 85%ile: 53.0  
 Vehicles/Day: 932

Direction: North Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016  
Daisy Street  
Mid-Block

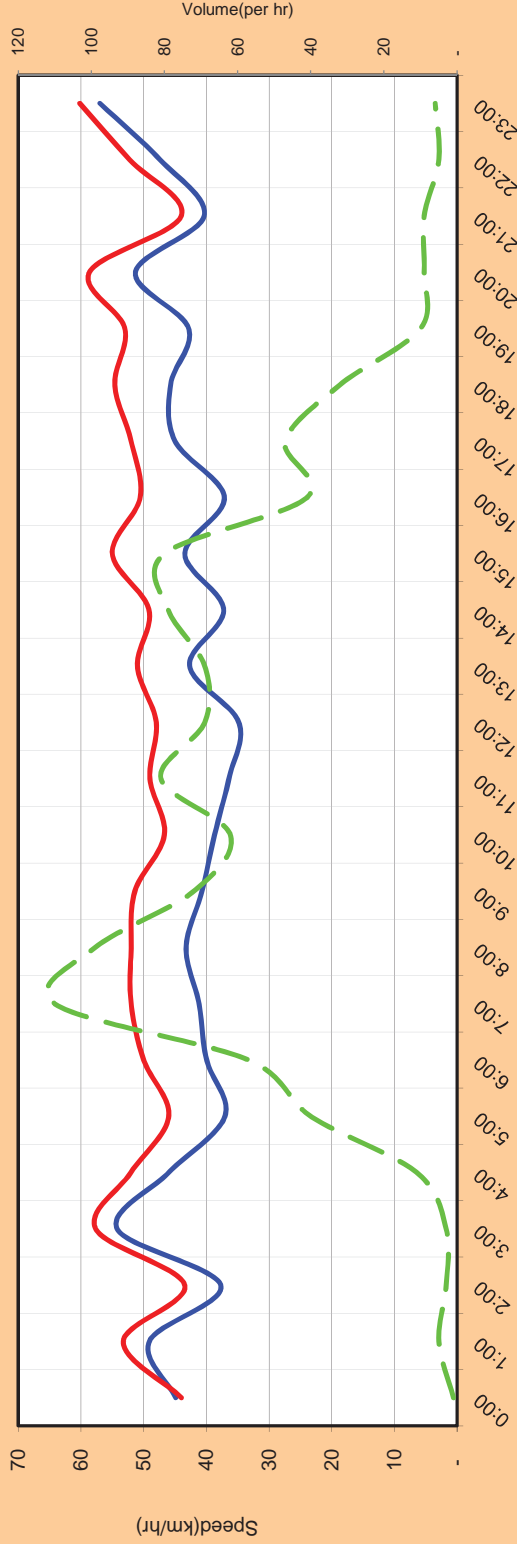
— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: 40.6  
 Ave. Speed: 51.0  
 85%ile: 1,000  
 Vehicles/Day: 1,000

Direction: North Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Mid-Block

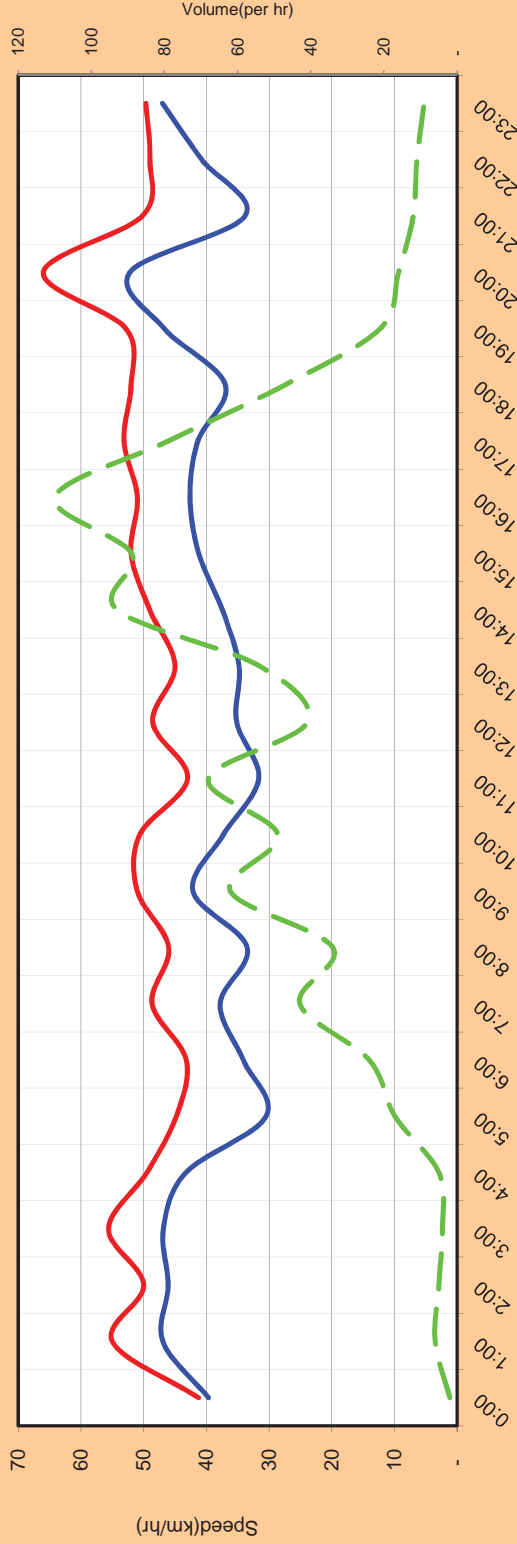
Daisy Street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: 38.8  
 Ave. Speed: 51.0  
 85%ile: 901  
 Vehicles/Day: 901  
 Direction: South Bk South Bound  
 Day: Tue  
 Week: Current



Tue 15/03/2016

Mid-Block

Daisy Street

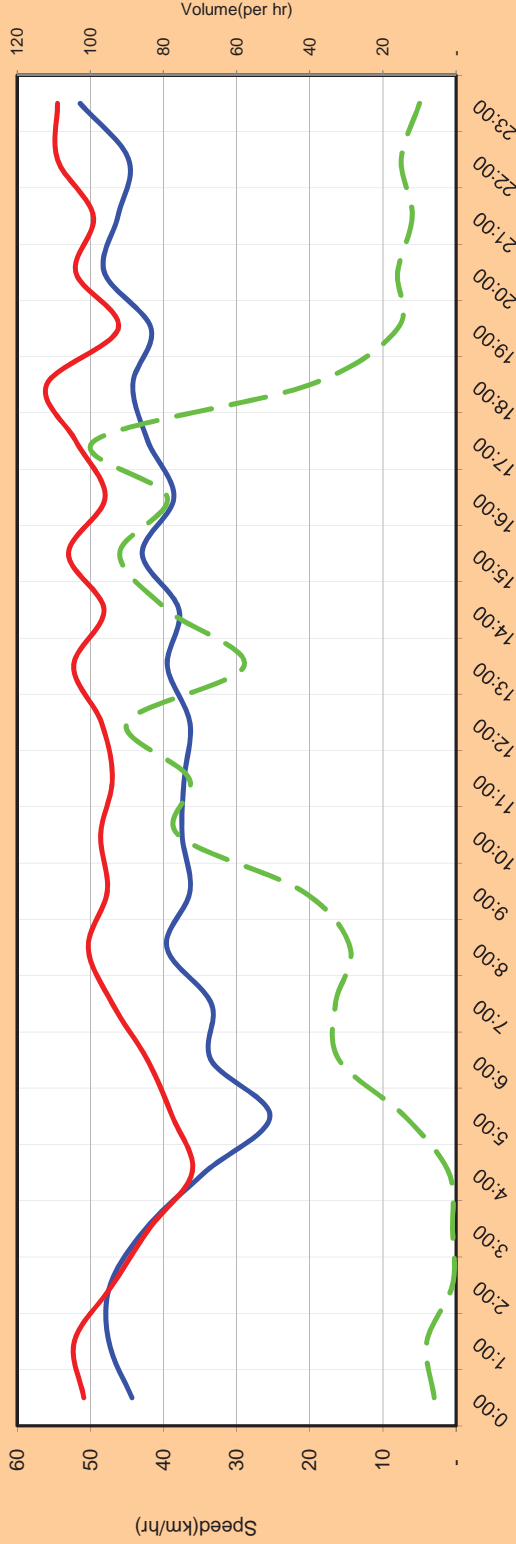
All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles  
Ave. Speed: 39.3  
85%ile: 51.0  
Vehicles/Day: 923

Direction: South Bk South Bound  
Day: Wed  
Week: Current



Wed 16/03/2016

Mid-Block

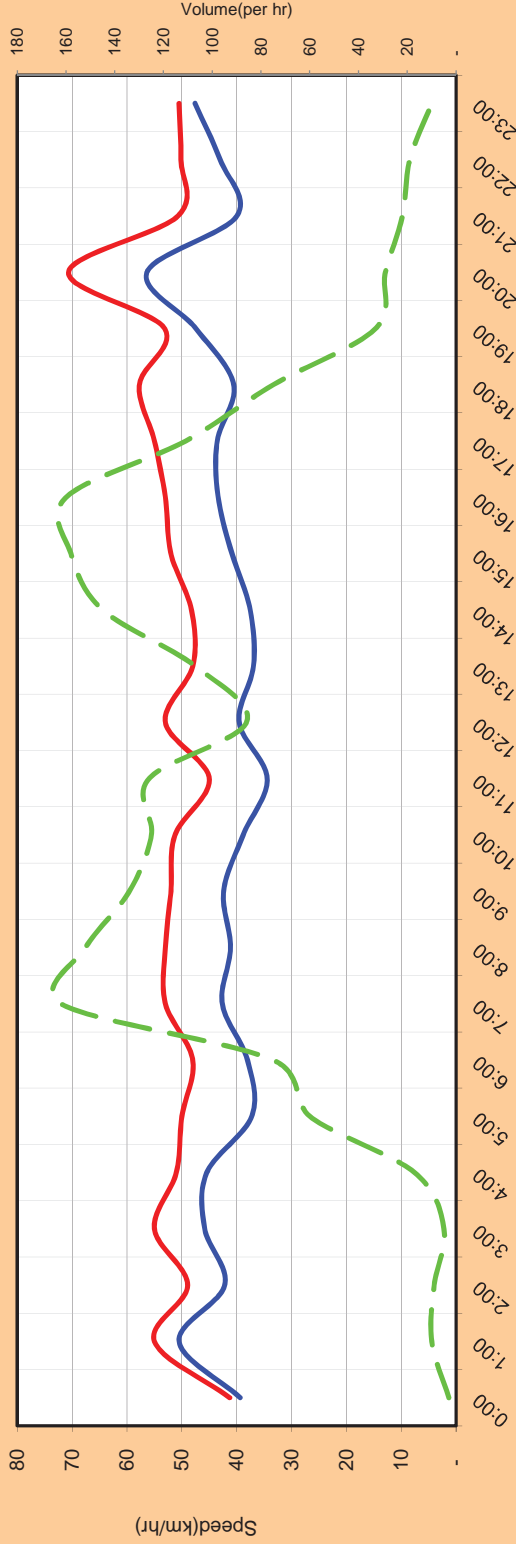
Daisy Street

All Vehicles - Ave. Speed  
All Vehicles - 85th%ile Speed  
Volume per Period



# Volume & Speed Data

All Vehicles: **Two way** Direction: **Two ways**  
 Ave. Speed: **40.7**  
 85%ile: **52.0** Day: **Tue**  
 Vehicles/Day: **1,833** Week: **Current**



Tue 15/03/2016  
Daisy Street Mid-Block

— All Vehicles - Ave. Speed  
— All Vehicles - 85th%ile Speed  
- - - Volume per Period



# Volume & Speed Data

All Vehicles: 40.0  
 Ave. Speed: 51.0  
 85%ile: 1,923  
 Vehicles/Day: 1,923

Direction: Two way Two ways  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Mid-Block

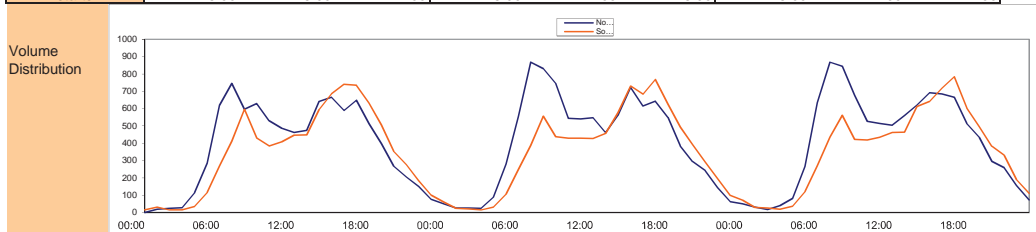
Daisy Street

All Vehicles - Ave. Speed (blue solid line)  
All Vehicles - 85th%ile Speed (red solid line)  
Volume per Period (green dashed line)

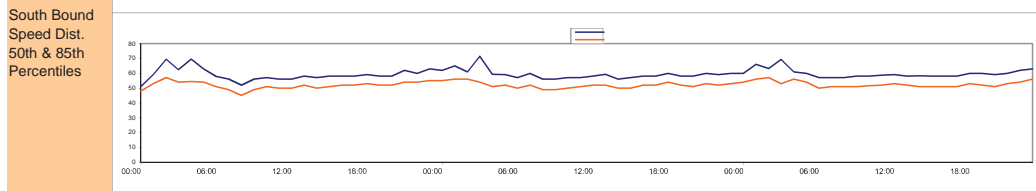
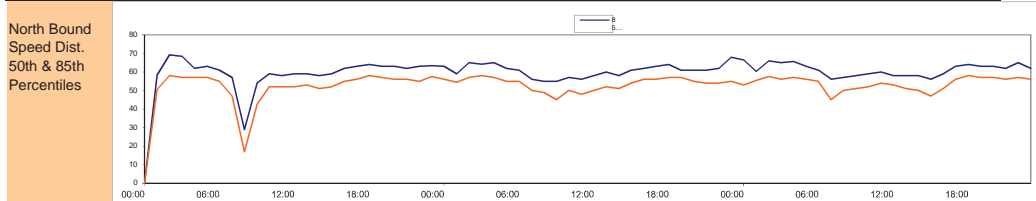
Queen street Mid-Block

Suburb: Revesby  
 Sited: 07  
 Speed Limit: 60

Date Record Interval (min)	Tuesday 15/03/2016			Wednesday 16/03/2016			Thursday 17/03/2016		
	60	North Bound	South Bound	Two ways	North Bound	South Bound	Two ways	North Bound	South Bound
Short %	92.3%	93.7%	92.9%	92.8%	93.9%	93.3%	92.8%	94.1%	93.4%
Med %	6.6%	5.5%	6.0%	6.2%	5.1%	5.7%	6.1%	5.2%	5.7%
Long %	1.1%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	0.7%	0.9%
7am-7pm Vol	6981	6513	13494	7629	6509	14138	7667	6559	14226
24Hr Vol	9167	8430	17597	9810	8491	18301	10006	8642	18648
85thile Km	60.0	58.0	59.0	60.0	58.0	59.0	60.0	59.0	60.0
Mean Spd	49.7	51.1	50.3	51.7	51.5	51.6	51.8	52.0	51.9
Std Dev	14.0	8.5	11.7	10.0	7.9	9.0	10.4	8.4	9.5
AM PK Interval Vol	746	596	1192	868	557	1388	868	561	1405
AM Pk Factor	0.08	0.07	0.07	0.09	0.07	0.08	0.09	0.06	0.08
AM Pk 85%	57.0	52.0	49.0	56.0	56.0	56.0	56.0	57.0	57.0
AM PK starts	07:00	08:00	08:00	07:00	08:00	08:00	07:00	08:00	08:00
PM PK Interval Vol	666	741	1383	723	768	1453	692	784	1450
PM Pk Factor	0.07	0.09	0.08	0.07	0.09	0.08	0.07	0.09	0.08
PM Pk 85%	59.0	58.0	61.0	61.0	58.0	59.0	56.0	58.0	61.0
PM Pk starts	15:00	16:00	17:00	15:00	17:00	15:00	15:00	17:00	17:00



Speed Stats	Tue 15/03	Tue 15/03	Tue 15/03	Wed 16/03	Wed 16/03	Wed 16/03	Thu 17/03	Thu 17/03	Thu 17/03
>9Km	99%	99%	99%	100%	100%	100%	100%	99%	100%
>19Km	93%	99%	96%	99%	100%	99%	99%	99%	99%
>29Km	88%	99%	93%	96%	99%	98%	96%	99%	97%
>39Km	83%	94%	88%	89%	94%	91%	88%	95%	92%
>49Km	64%	59%	62%	64%	61%	63%	65%	65%	65%
>59Km	18%	10%	14%	17%	11%	14%	18%	13%	15%
>69Km	2%	1%	1%	1%	1%	1%	2%	1%	2%
>79Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>89Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>99Km	0%	0%	0%	0%	0%	0%	0%	0%	0%
>109Km	0%	0%	0%	0%	0%	0%	0%	0%	0%



1: Car+MotorCycle	8,430	7,867	16,297	9,067	7,941	17,008	9,228	8,083	17,311
2: Car + Trailer	30	28	58	32	28	60	60	48	108
3: 2 axle truck	489	383	872	489	367	856	485	382	867
4: 3axle truck	91	63	154	99	53	152	99	55	154
5: 4 axle truck	22	15	37	23	13	36	29	10	39
6: 3 axle semi	7	4	11	5	5	10	5	7	12
7: 4 axle semi	5	8	13	9	8	17	10	10	20
8: 5 axle semi	8	9	17	4	5	9	4	3	7
9: 6 axle semi	69	42	111	69	55	124	73	35	108
10: 7/8 axle truck	11	11	22	10	15	25	9	7	16
11: Road Train	0	0	0	1	0	1	1	0	1
12: Road Train	0	0	0	0	0	0	0	0	0
13: Unknown	5	0	5	2	1	3	3	2	5
14: Motorcycle	33	53	86	38	44	82	48	48	96
Unpaired Axles	0	0	0	0	0	0	0	0	0

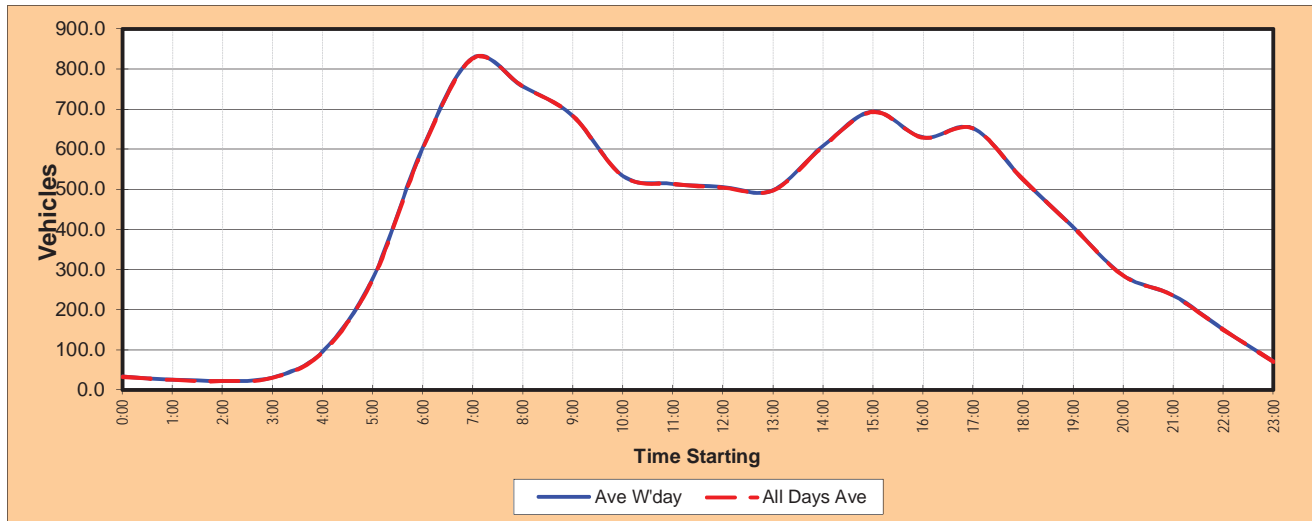
Pace Min	47.0	44.0	45.0	46.0	44.0	45.0	46.0	44.0	45.0
%Vol	63%	76%	68%	67%	76%	71%	66%	76%	70%

Definitions  
 85th Percentile Speed = The speed at or below which 85% of volume is observed to travel  
 15kph Pace Speed = The 15kph speed range within which the largest percentage of volume is observed to travel



<b>Road</b>	Queen street	<table border="1"> <tr> <td>Average Weekday</td> <td>9661</td> </tr> <tr> <td>All Day Average</td> <td>9661</td> </tr> <tr> <td>Weekday Heavy's</td> <td>7.3%</td> </tr> <tr> <td>All Day Heavy's</td> <td>7.3%</td> </tr> </table>	Average Weekday	9661	All Day Average	9661	Weekday Heavy's	7.3%	All Day Heavy's	7.3%
Average Weekday	9661									
All Day Average	9661									
Weekday Heavy's	7.3%									
All Day Heavy's	7.3%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	07									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	North Bound									

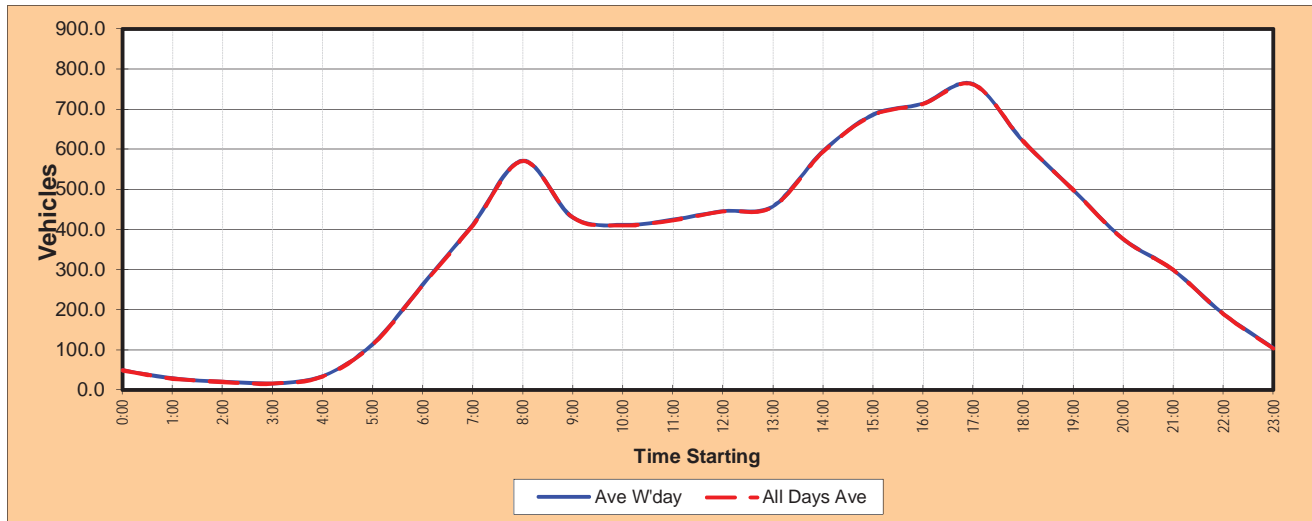
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>746</b>	<b>868</b>	<b>868</b>					
<b>PM Peak</b>		<b>666</b>	<b>723</b>	<b>692</b>					
0:00		0	50	50				33	33
1:00		19	27	31				26	26
2:00		25	26	17				23	23
3:00		28	25	40				31	31
4:00		114	89	82				95	95
5:00		284	280	266				277	277
6:00		618	555	634				602	602
7:00		746	868	868				827	827
8:00		596	831	844				757	757
9:00		629	746	676				684	684
10:00		530	544	526				533	533
11:00		486	541	515				514	514
12:00		463	548	504				505	505
13:00		474	460	559				498	498
14:00		641	561	621				608	608
15:00		666	723	692				694	694
16:00		589	615	684				629	629
17:00		648	643	666				652	652
18:00		513	549	512				525	525
19:00		398	385	435				406	406
20:00		267	294	295				285	285
21:00		206	242	259				236	236
22:00		150	145	157				151	151
23:00		77	63	73				71	71
<b>Total</b>		<b>9167</b>	<b>9810</b>	<b>10006</b>				<b>9661</b>	<b>9661</b>
<b>% Heavies</b>		<b>7.7%</b>	<b>7.2%</b>	<b>7.1%</b>				<b>7.3%</b>	<b>7.3%</b>





<b>Road</b>	Queen street	<table border="1"> <tr> <td>Average Weekday</td> <td>8521</td> </tr> <tr> <td>All Day Average</td> <td>8521</td> </tr> <tr> <td>Weekday Heavy's</td> <td>6.1%</td> </tr> <tr> <td>All Day Heavy's</td> <td>6.1%</td> </tr> </table>	Average Weekday	8521	All Day Average	8521	Weekday Heavy's	6.1%	All Day Heavy's	6.1%
Average Weekday	8521									
All Day Average	8521									
Weekday Heavy's	6.1%									
All Day Heavy's	6.1%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	07									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	South Bound									

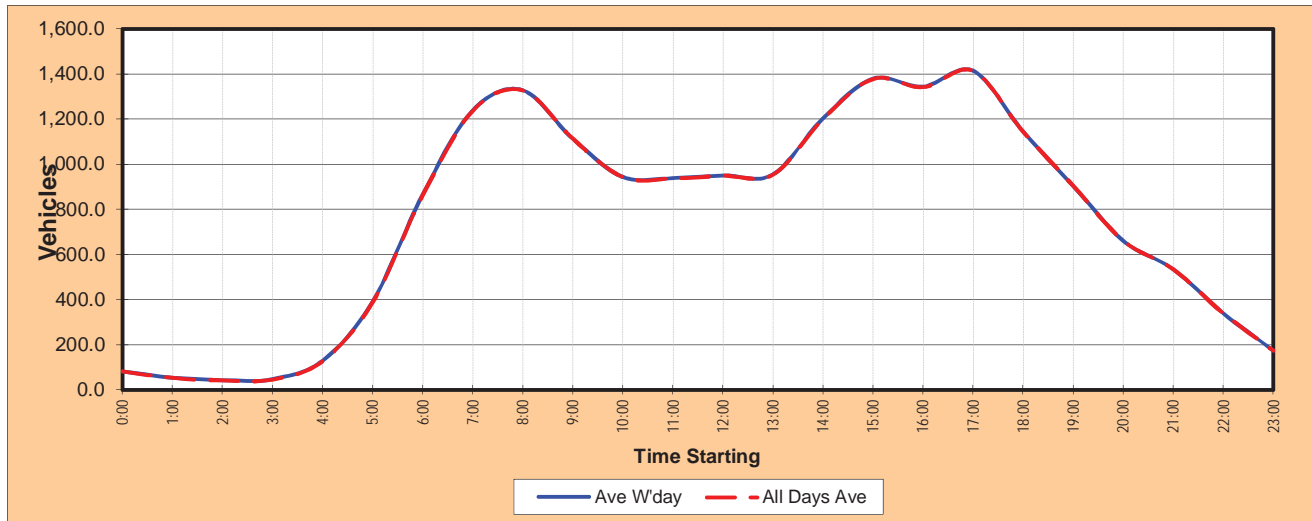
Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>596</b>	<b>557</b>	<b>561</b>					
<b>PM Peak</b>		<b>741</b>	<b>768</b>	<b>784</b>					
0:00		16	61	71				49	49
1:00		32	24	30				29	29
2:00		15	21	26				21	21
3:00		16	15	19				17	17
4:00		35	32	36				34	34
5:00		115	107	120				114	114
6:00		268	249	269				262	262
7:00		412	387	435				411	411
8:00		596	557	561				571	571
9:00		429	438	423				430	430
10:00		384	429	419				411	411
11:00		408	429	435				424	424
12:00		446	428	463				446	446
13:00		449	458	465				457	457
14:00		595	577	612				595	595
15:00		685	730	642				686	686
16:00		741	683	717				714	714
17:00		735	768	784				762	762
18:00		633	625	603				620	620
19:00		506	493	498				499	499
20:00		353	393	383				376	376
21:00		276	292	330				299	299
22:00		184	196	189				190	190
23:00		101	99	112				104	104
<b>Total</b>		<b>8430</b>	<b>8491</b>	<b>8642</b>				<b>8521</b>	<b>8521</b>
<b>% Heavies</b>		<b>6.3%</b>	<b>6.1%</b>	<b>5.9%</b>				<b>6.1%</b>	<b>6.1%</b>





<b>Road</b>	Queen street	<table border="1"> <tr> <td>Average Weekday</td> <td>18182</td> </tr> <tr> <td>All Day Average</td> <td>18182</td> </tr> <tr> <td>Weekday Heavy's</td> <td>6.8%</td> </tr> <tr> <td>All Day Heavy's</td> <td>6.8%</td> </tr> </table>	Average Weekday	18182	All Day Average	18182	Weekday Heavy's	6.8%	All Day Heavy's	6.8%
Average Weekday	18182									
All Day Average	18182									
Weekday Heavy's	6.8%									
All Day Heavy's	6.8%									
<b>Location</b>	Mid-Block									
<b>Site No.</b>	07									
<b>Start Date</b>	Tuesday 15/03/2016									
<b>Direction</b>	Two ways									

Starting Time	Day of Week							Ave W'day	All Days Ave
	Mon	Tue 15-Mar	Wed 16-Mar	Thu 17-Mar	Fri	Sat	Sun		
<b>AM Peak</b>		<b>1192</b>	<b>1388</b>	<b>1405</b>					
<b>PM Peak</b>		<b>1383</b>	<b>1453</b>	<b>1450</b>					
0:00		16	111	121				83	83
1:00		51	51	61				54	54
2:00		40	47	43				43	43
3:00		44	40	59				48	48
4:00		149	121	118				129	129
5:00		399	387	386				391	391
6:00		886	804	903				864	864
7:00		1158	1255	1303				1239	1239
8:00		1192	1388	1405				1328	1328
9:00		1058	1184	1099				1114	1114
10:00		914	973	945				944	944
11:00		894	970	950				938	938
12:00		909	976	967				951	951
13:00		923	918	1024				955	955
14:00		1236	1138	1233				1202	1202
15:00		1351	1453	1334				1379	1379
16:00		1330	1298	1401				1343	1343
17:00		1383	1411	1450				1415	1415
18:00		1146	1174	1115				1145	1145
19:00		904	878	933				905	905
20:00		620	687	678				662	662
21:00		482	534	589				535	535
22:00		334	341	346				340	340
23:00		178	162	185				175	175
<b>Total</b>		<b>17597</b>	<b>18301</b>	<b>18648</b>				<b>18182</b>	<b>18182</b>
<b>% Heavies</b>		<b>7.0%</b>	<b>6.7%</b>	<b>6.6%</b>				<b>6.8%</b>	<b>6.8%</b>





# Volume & Speed Data

All Vehicles: North Bound  
 Ave. Speed: 49.7  
 85%ile: 60.0  
 Vehicles/Day: 9,167



Tue 15/03/2016

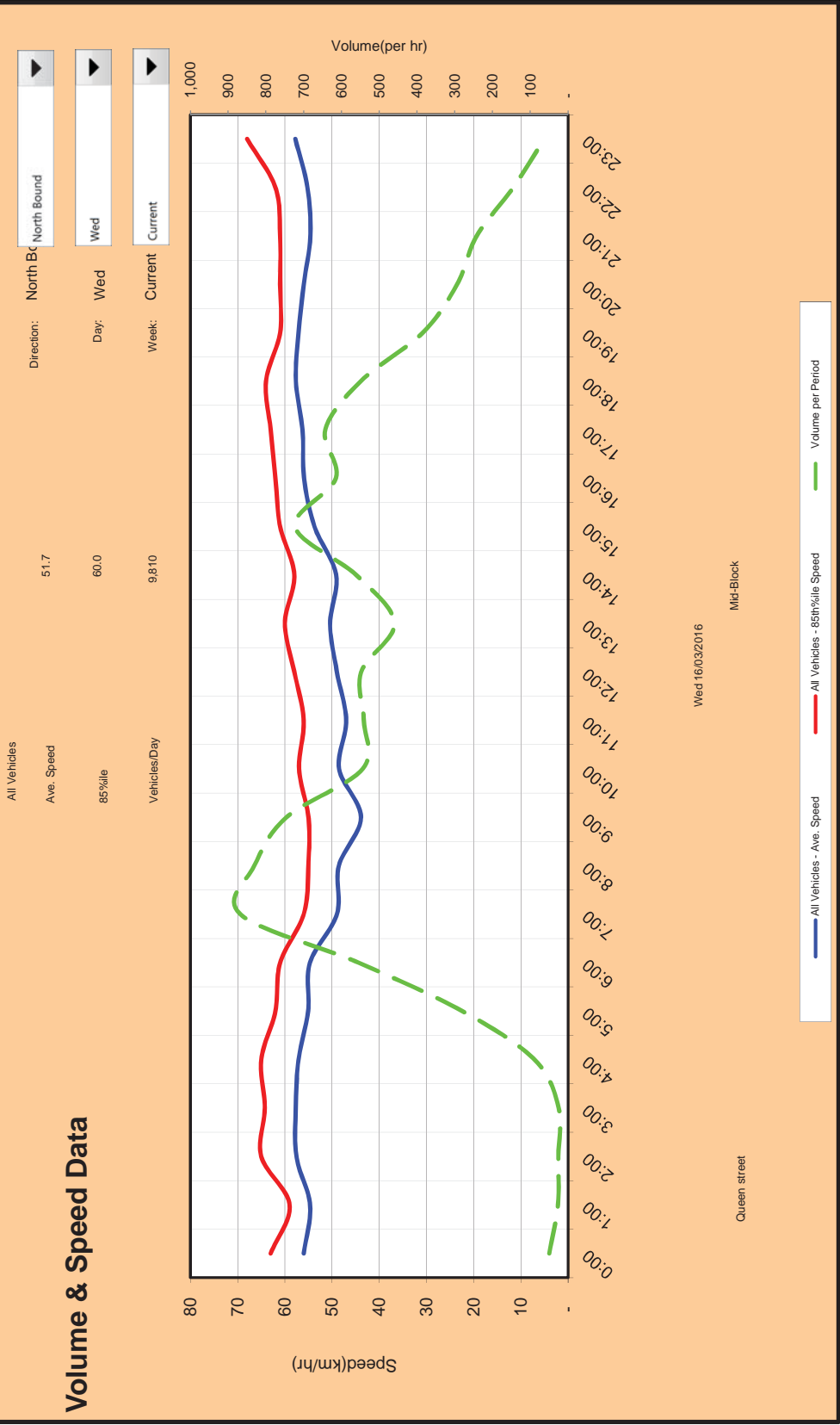
Mid-Block

Queen street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period

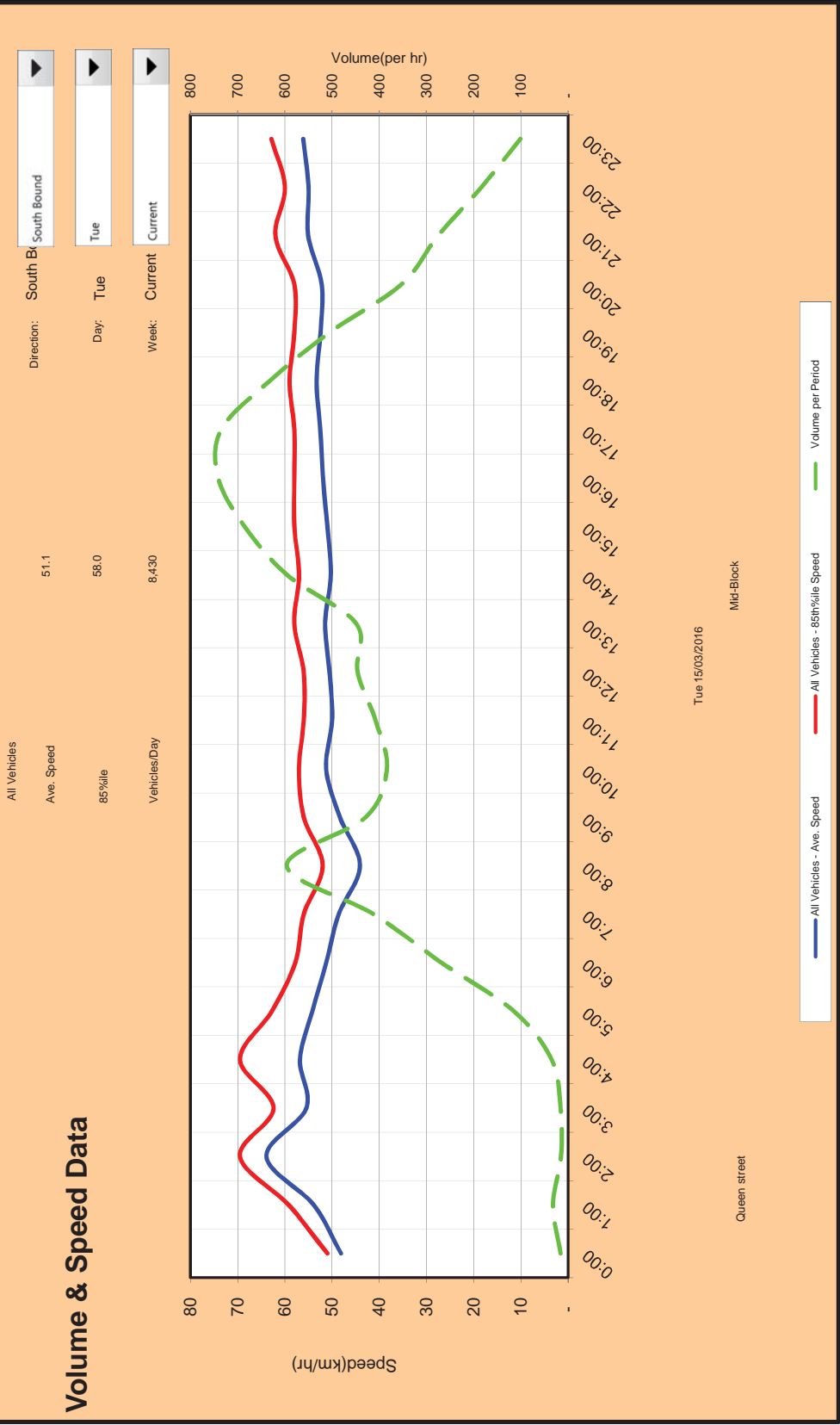


# Volume & Speed Data





# Volume & Speed Data





# Volume & Speed Data

All Vehicles: 51.5  
 Ave. Speed: 58.0  
 85%ile: 8,491  
 Vehicles/Day: 8,491

Direction: South Bk South Bound  
 Day: Wed  
 Week: Current



Wed 16/03/2016

Mid-Block

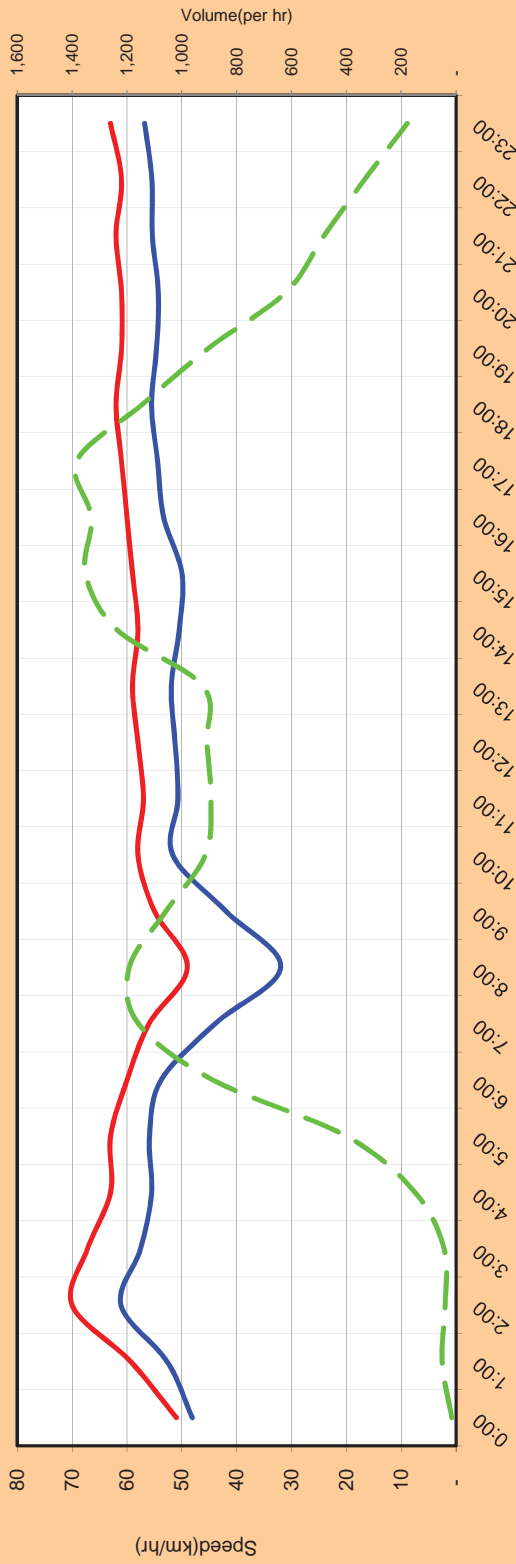
Queen street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data

All Vehicles: **Two way** Two ways  
 Ave. Speed: **50.3**  
 85%ile: **59.0**  
 Vehicles/Day: **17,597**  
 Week: **Current** Current



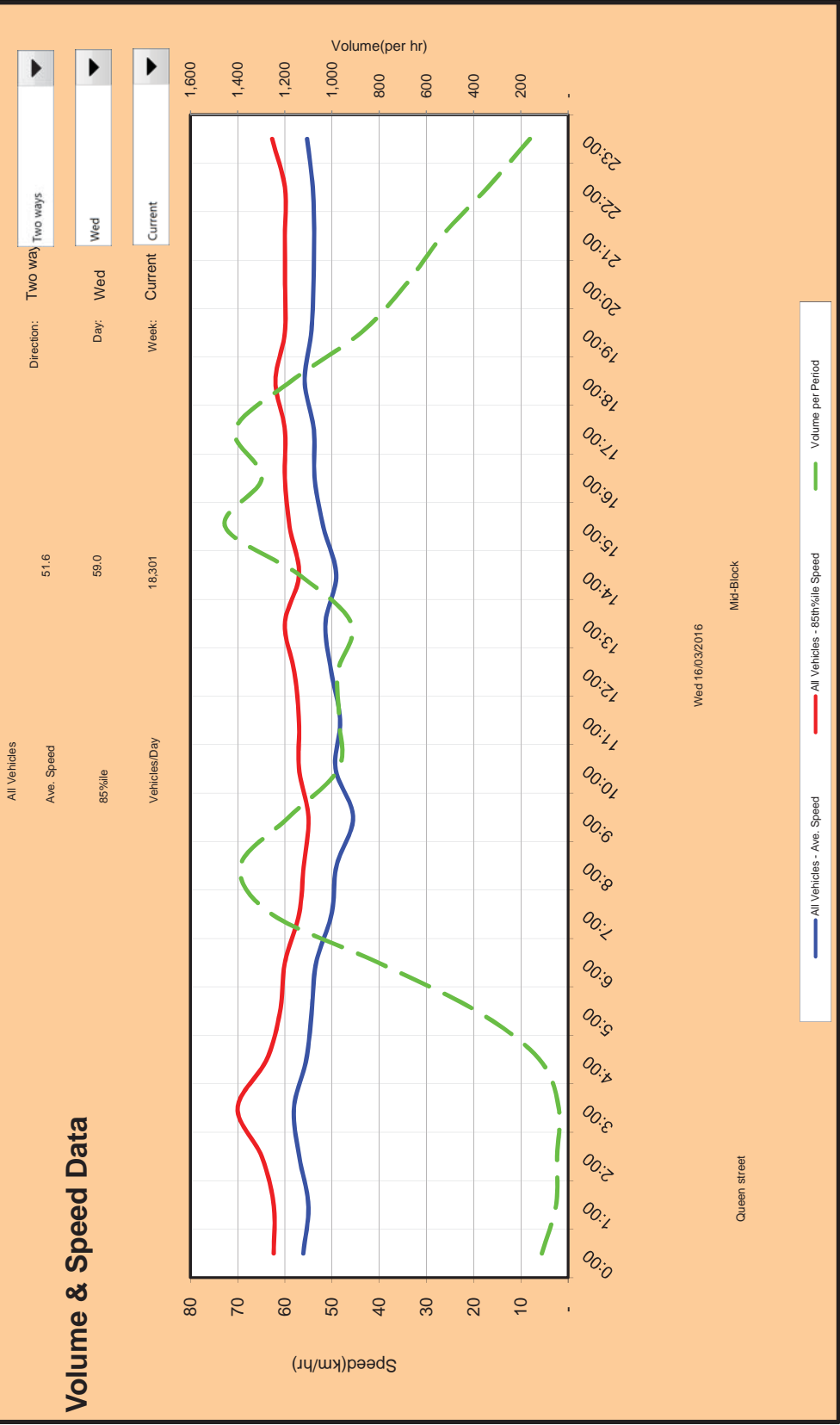
Tue 15/03/2016  
Mid-Block

Queen street

All Vehicles - Ave. Speed  
 All Vehicles - 85th%ile Speed  
 Volume per Period



# Volume & Speed Data



# APPENDIX E

## Agency Requirements

#### 4.1 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) for the preparation of the EIS were obtained by Cardno from the Department of Planning and Environment (DoPE) on 23 November 2015. The SEARs provide guidance on the environmental assessment requirements for the project.

The SEARs requires the following Traffic and Transport matters be considered:

SEARs Key Issue	Specific Matters to Address	Compliance
Traffic and Transport	<ul style="list-style-type: none"> <li>Details of all traffic types and volumes likely to be generated during construction and operation, including a description of the haul routes;</li> </ul>	Yes, see section 4 in TIA.
	<ul style="list-style-type: none"> <li>An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model;</li> </ul>	Yes, see section 4 in TIA.
	<ul style="list-style-type: none"> <li>Detailed plans of the proposed layout of the internal road network and parking on the site in accordance with the relevant Australian standards; and</li> </ul>	Yes, see section 5 in TIA.
	<ul style="list-style-type: none"> <li>Detailed plans of any proposed road upgrades, infrastructure works or new roads required for the development.</li> </ul>	N/A

#### 4.2 Bankstown Council Requirements

Additional Consultation was carried out with Bankstown Council and on 04 March 2016, Council advised of the following additional Traffic and Transport matters to be considered as part of the EIS preparation.

Traffic Issue	Compliance
<b>5. Vehicle enter and egress direction – All vehicles are to enter in a forward direction and exit in a forward direction from the driveway.</b>	Yes, see section 6 in TIA.
<b>6. Driveway design – Driveways are to be designed allowing the largest vehicles accessing the site to comply with Australian Standards. Currently there are 90 degree on-street angle parking spaces opposite the existing driveways. Consideration needs to be taken into account when checking the turning swept paths accessing these driveways.</b>  The EIS must review the appropriateness of the existing driveways for intended purpose to avoid damaging Council property.	Yes, see section 6 in TIA.
<b>7. Sight distance – Sight distance to approaching traffic in Violet Street are to comply with AS2890.1-2004 Figure 3.2</b>	Yes, see section 5 in TIA.
<b>8. Sight lines – Design plans are to comply with AS2890.1-2004 Figure 3.3, providing clear sight lines to pedestrians for vehicles existing Violet Street.</b>	Yes, see section 5 in TIA.
<b>9. Parking – Sufficient off-street parking for staff and visitors is to be provided.</b>	Yes, see section 5 in TIA.

<p><b>10. Separated vehicular exits – Staff and visitor vehicles should exit on Violet Street through a separate driveway to the heavy vehicles to avoid conflict and improve safety.</b></p>	<p>Yes, see section 3, 5 in TIA.</p>
<p><b>11. Swept paths – Details of the largest vehicles are to be provided, including swept paths of these vehicles circulating between the various buildings complying with Australian Standards.</b></p>	<p>Yes, see section 6 in TIA.</p>
<p><b>12. Routes – Travel routes of the heavy vehicles accessing to and from the site are to be identified and provided on a plan.</b></p>	<p>Yes, see section 6 in TIA.</p>
<p><b>13. Traffic surveys – In addition to the surveys mentioned in the Application Report, traffic surveys are needed including heavy and light vehicle counts on roads which will be used by heavy vehicles accessing the site including: Violet Street, Daisy Street, Queen Street, Marigold Street, Gordon Parker Street and Carrington Road.</b></p> <p>These counts will assist in determining the potential increase in truck movement in Violet Street and the surrounding Streets, and if a levy may need to be charged for the impact to the pavement as a result of the increase in truck movement.</p>	<p>Yes, see Section 4, Appendix A and D in TIA.</p>