

Rezoning Application
Residential Planning Proposal

**27 Mitchell Street,
Croydon Park**

TRAFFIC AND PARKING ASSESSMENT REPORT

19 November 2013

Ref 12260

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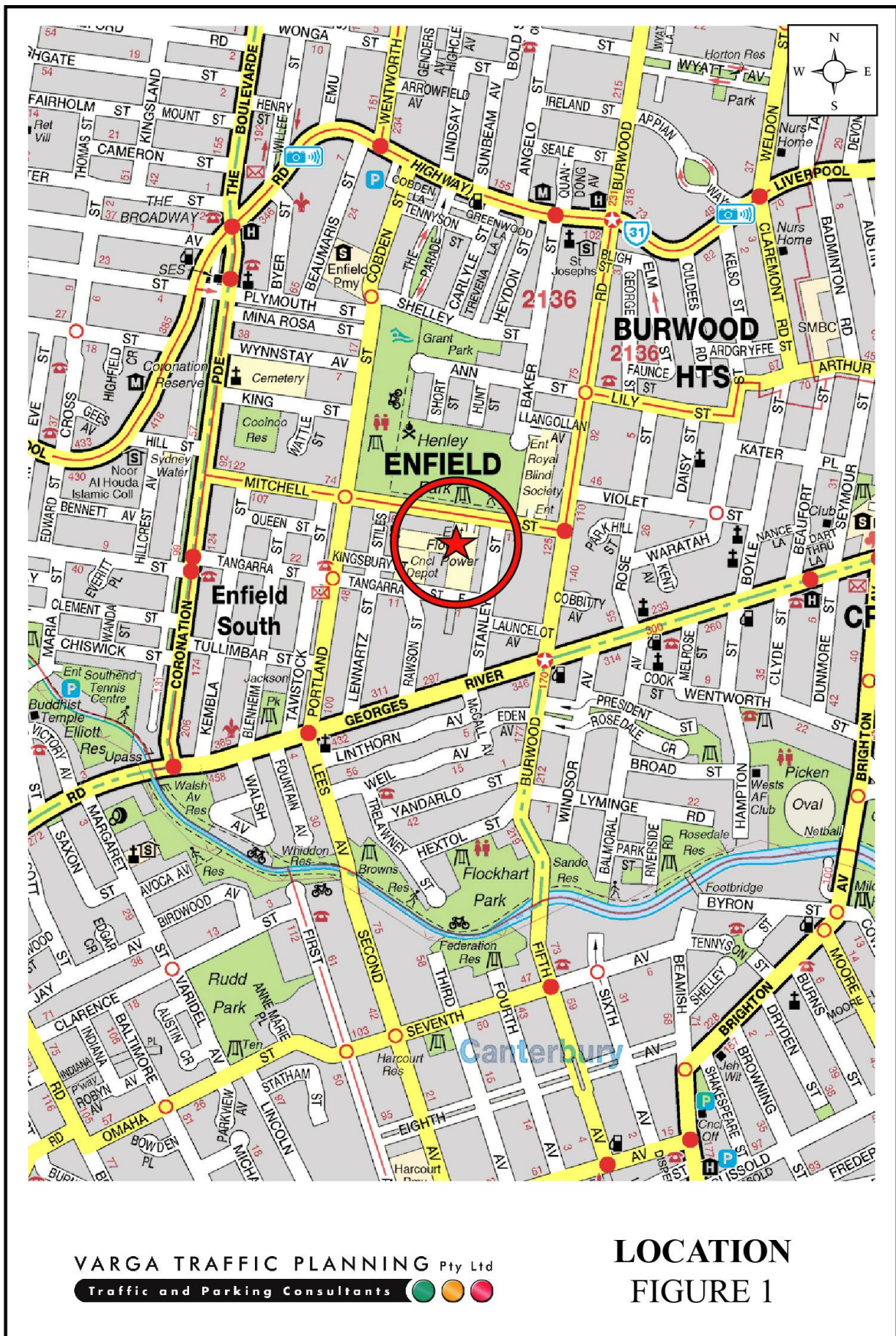
1. INTRODUCTION

This report has been prepared to accompany a Planning Proposal application to Burwood City Council which seeks to rezone the site for medium density residential development at 27 Mitchell Street, Croydon Park (Figures 1 and 2). An indicative Master Plan is attached to the Planning Proposal which provides a concept for the type of residential dwellings and densities.

The planning proposal seeks to rezone the land for medium residential density. The indicative Master Plan envisages demolition of the existing Flower Power nursery garden centre to facilitate the future construction of residential apartment/townhouse development. Carparking is likely to be provided within a new basement carparking area, in accordance with Council's requirements.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the indicative Master Plan
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the indicative Master Plan, and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the indicative Master Plan in terms of road network capacity
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.



2. INDICATIVE MASTER PLAN

Site

The subject site is located on the southern side of Mitchell Street, in between Stiles Street and Stanley Street, and extends through to Tangarra Street East. The site has a street frontage approximately 63m in length to Mitchell Street, 67m in length to Tangarra Street East and occupies an area of approximately 19,269m².

The subject site is currently occupied by a Flower Power nursery which includes a fruit shop, pet shop and café.

Off-street parking for the Flower Power garden centre is currently provided for approximately 140 cars in a large outdoor car parking area. Vehicular access to the garden centre car parking area is provided via an entry/exit driveway located at the eastern end of the Mitchell Street site frontage.

Loading/servicing for the existing garden centre is currently undertaken by a variety of vehicles up to and including 8.8m long medium rigid trucks. The loading area is located at the rear of the site, with vehicular ingress provided via either the abovementioned driveway in Mitchell Street or an entry/exit driveway located at the eastern end of the Tangarra Street East site frontage. Vehicular egress from the loading area is provided via Tangarra Street East only.

Indicative Master Plan

The indicative Master Plan attached to the Planning Proposal envisages the demolition of the existing nursery, fruit shop, pet shop and café buildings on the site to facilitate the construction of a new residential apartment development comprising approximately eight buildings that range in height from two to three storeys. Redevelopment is subject to a future development application.

The indicative Master Plan attached to the Planning Proposal has identified a potential dwelling density in the order of 239 residential apartments.

For the purpose of this analysis and given the preliminary nature of the Masterplan, a nominal mix of units as follows is used:

1 bedroom 30%:	72 dwellings
2 bedroom 60%:	143 dwellings
3 bedroom 10%:	24 dwellings

Future off-street car parking is likely to be provided in basement car parking areas in accordance with Council's requirements. It is envisaged that vehicular access to the car parking facilities is to be provided via two separate two-way driveways; one located at the eastern end of the Mitchell Street site frontage and the other located at the eastern end of the Tangarra Street East site frontage.

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

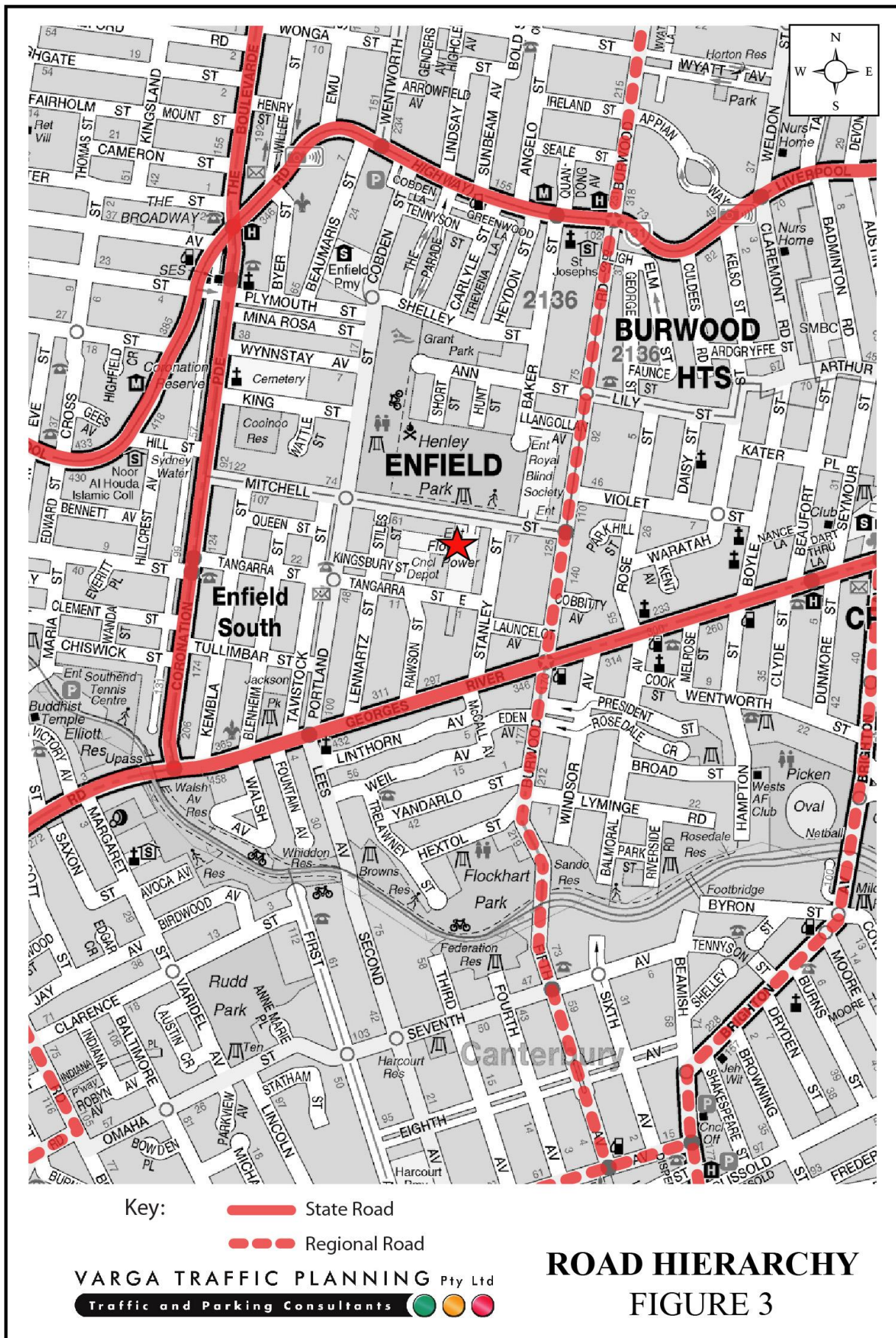
The Hume Highway is classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Summer Hill to Campbelltown and beyond. It typically carries three traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a centre median island.

Georges River Road is also classified by the RMS as a *State Road* and provides another key east-west road link in the area, linking Milton Street to Punchbowl Road. It typically carries two traffic lanes in each direction in the vicinity of the site, with kerbside parking generally permitted outside of commuter peak periods.

Coronation Parade is also classified by the RMS as a *State Road* and provides a key north-south road link in the area, linking Georges River Road to the Hume Highway. It typically carries two traffic lanes in each direction in the vicinity of the site, with kerbside parking generally permitted outside of commuter peak periods.

Burwood Road is classified by the RMS as a *Regional Road* which provides another key north-south road link in the area, linking Concord to Enfield. It typically carries one traffic lanes in each direction in the vicinity of the site, with additional lanes provided at key locations.

Mitchell Street and Tangarra Street East are local, unclassified roads which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of both roads.





Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 50 km/h SPEED LIMIT which applies to Mitchell Street, Tangarra Street East and all other local roads in the area
- TRAFFIC SIGNALS in Mitchell Street where it intersects with Burwood Road
- a ROUNDABOUT in Mitchell Street where it intersects with Portland Street.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this traffic study. The traffic surveys were undertaken in Mitchell Street and also Tangarra Street East where they intersect with the site's existing vehicular access driveways on Friday 14th October and Saturday 15th October, 2012. The results of the traffic surveys are reproduced in full in Appendix A and reveal that:

- two-way traffic flows in Mitchell Street are typically in the order of 400-500 vehicles per hour (vph) during the morning and afternoon weekday peak periods, increasing to 500-600 vph during the Saturday peak period
- two-way traffic flows in Tangarra Street East are significantly lower, typically in the order of 90 vph during the morning and afternoon weekday peak periods as well as the during the Saturday peak period.

The traffic surveys also identified the traffic generation characteristics of the existing use of the site by Flower Power as follows:

- cumulative two-way traffic flows into and out of Flower Power site are typically in the order of 140 vph during the *morning* peak period

- cumulative two-way traffic flows in/out of Flower Power site are typically in the order of 220 vph during the *afternoon* peak period
- cumulative two-way traffic flows in/out of Flower Power site are typically in the order of 460 vph during the *Saturday* peak period.

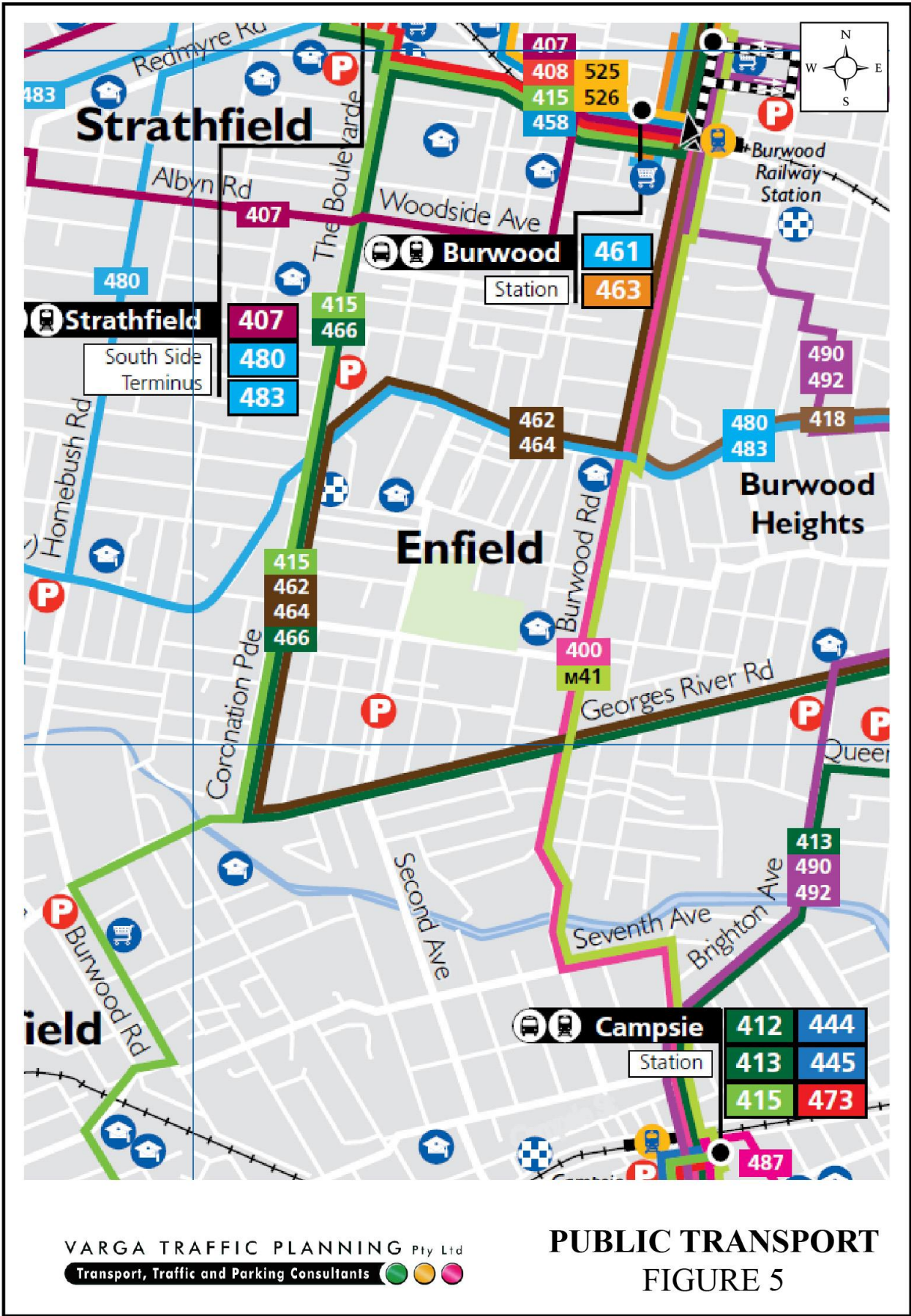
Public Transport Services

The site is readily accessible by public transport, being located in easy walking distances of regular bus services traversing Coronation Parade, Georges River Road, Burwood Road and/or Liverpool Road, as illustrated on Figure 5. A summary of bus services available in the vicinity of the site on weekdays and weekends is summarised in the table below, revealing that:

- there are approximately 295 inbound bus services and 287 outbound bus services available in the vicinity of the site on weekdays
- weekend bus services comprise approximately 190 services in each direction on Saturday, and approximately 140 bus services on Sundays.

NUMBER OF BUS SERVICES							
Route No.	Route	MON to FRI		SAT		SUN	
		IN	OUT	IN	OUT	IN	OUT
400	Burwood to Bondi Jctn via Airport	52	50	45	45	45	45
462, 466 & 468	Ashfield to Cabarita & Mortlake	74	70	46	53	25	31
415	Chiswick to Campsie	41	41	27	29	11	12
480 & 483	Strathfield to City	70	68	41	47	20	20
M41*	Marsfield, Ryde, Concord, Enfield, Campsie, Hurstville	58	58	33	33	33	33
TOTAL		295	287	192	187	134	141

*Approximate



In addition, the bus services provide a direct link to Strathfield, Burwood and Campsie railway stations, connecting with the suburban rail network services, and with Country Link rail services at Strathfield and Central railway stations. Bus No.400 also services the Sydney International and Domestic Airports.

In the circumstances, it is reasonable to conclude that the proposed development site is well served by public transport.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the former Roads and Traffic Authority's publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)*.

The RTA *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

High Density Residential Flat Buildings in Sub-Regional Centres

0.29 peak hour vehicle trips/dwelling

The RTA *Guidelines* also make the following observation in respect of high density residential flat buildings:

Definition

A *high density residential flat building* refers to a building containing 20 or more dwellings. This does not include aged or disabled persons housing. *High density residential flat buildings* are usually more than 5 levels, have basement level carparking and are located in close proximity to public transport services. The building may contain a component of commercial use.

Factors

The above rates include visitors, staff, service/delivery and on-street movements such as taxis and pick-up/set-down activities.

Application of the above “high density” traffic generation rate to the potential for 239 dwellings on the site yields a traffic generation potential of approximately 69 vehicle trips per hour during commuter peak periods.

However, for the purposes of sensitivity testing, the higher traffic generation rates nominated in the RTA Guidelines for *medium density* residential developments have been adopted in this instance, as set out below:

Medium Density Residential Flat Buildings

Up to 2-bedrooms:	0.4-0.5 peak hour vehicle trips/dwelling
3 or more bedrooms:	0.5-0.65 peak hour vehicle trips/dwelling

Application of the above “medium density” traffic generation rates to the potential for 239 dwellings on the site yields a traffic generation potential of approximately 123 vehicle trips per hour during commuter peak periods.

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential expected to occur as a consequence of the development proposal.

As noted in the foregoing, traffic surveys undertaken at the Flower Power’s existing site access driveways reveal that:

- cumulative two-way traffic flows into and out of Flower Power are typically in the order of 140 vph during the *morning* peak period
- cumulative two-way traffic flows into and out of Flower Power are typically in the order of 220 vph during the *afternoon* peak period
- cumulative two-way traffic flows into and out of Flower Power are typically in the order of 460 vph during the *Saturday* peak period.

Accordingly, it is likely that the proposed development will result in a ***significant reduction*** in the traffic generation potential the site during the morning, afternoon *and* Saturday peak periods.

Traffic Implications - Road Network Capacity

The traffic implications of development proposals primarily concern the effects that any *additional* traffic flows may have on the operational performance of the nearby road network. Those effects can be assessed using the SIDRA program which is widely used by the RTA and many LGA's for this purpose. Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages.

The results of the SIDRA analysis of the Mitchell Street & site access driveway intersection are summarised on Table 3.1 below, revealing that:

- the Mitchell Street & site access driveway intersection currently operates at *Level of Service "A"* under the existing traffic demands with total average vehicle delays in the order of up to 5 seconds/vehicle
- under the projected future traffic demands expected to be generated by the development proposal, the Mitchell Street & site access driveway intersection will continue to operate at *Level of Service "A"*, with a reduction in average vehicle delays to approximately 2 seconds/vehicle.

The results of the SIDRA analysis of the Tangarra Street East & site access driveway intersection are summarised on Table 3.2 below, revealing that:

- the Tangarra Street East & site access driveway intersection currently operates at *Level of Service "A"* under the existing traffic demands with total average vehicle delays in the order of 1 second/vehicle
- under the projected future traffic demands expected to be generated by the development proposal, the Tangarra Street East & site access driveway intersection will continue to

operate at *Level of Service "A"*, with increases in average vehicle delays of approximately 3 seconds/vehicle.

In the circumstances, it is clear that the proposed development will not have any unacceptable traffic implications in terms of road network capacity.

TABLE 3.1 - RESULTS OF SIDRA ANALYSIS OF MITCHELL STREET & SITE ACCESS DRIVEWAY						
Key Indicators	Existing Traffic Demand			Projected Development Traffic Demand		
	AM	PM	SAT	AM	PM	SAT
Level of Service	A	A	A	A	A	A
Degree of Saturation	0.117	0.152	0.356	0.098	0.151	0.101
Average Vehicle Delay (secs/veh)						
Mitchell Street (west) T	1.0	1.4	1.5	0.8	1.4	0.8
R	7.8	8.2	8.2	7.6	8.1	7.6
Site Access Driveway (south) L	9.4	10.6	12.1	9.3	10.4	9.3
R	9.7	10.9	12.5	9.6	10.7	9.7
Mitchell Street (east) L	6.4	6.4	6.4	6.4	6.4	6.4
T	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL AVERAGE VEHICLE DELAY	2.6	2.6	5.5	1.8	1.6	1.7

MIT_ACCX

MIT_ACCP

TABLE 3.2 - RESULTS OF SIDRA ANALYSIS OF TANGARRA STREET EAST & SITE ACCESS DRIVEWAY						
Key Indicators	Existing Traffic Demand			Projected Development Traffic Demand		
	AM	PM	SAT	AM	PM	SAT
Level of Service	A	A	A	A	A	A
Degree of Saturation	0.020	0.030	0.024	0.049	0.051	0.037
Average Vehicle Delay (secs/veh)						
Tangarra Street East (west) L	6.4	6.4	6.4	6.4	6.4	6.4
T	0.0	0.0	0.0	0.0	0.0	0.0
Tangarra Street East (east) T	0.1	0.1	0.1	0.1	0.2	0.1
R	6.8	6.9	6.9	6.9	6.9	6.9
Site Access Driveway (north) L	6.6	6.8	6.8	6.7	7.0	6.8
R	7.0	7.1	7.1	7.1	7.3	7.2
TOTAL AVERAGE VEHICLE DELAY	0.6	0.6	1.1	3.4	2.9	3.1

TAN_ACCX

TAN_ACCP

Criteria for Interpreting Results of Sidra Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good operation.	Good operation.
'B'	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation.	Good operation.
B	15 to 28	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
C	29 to 42	Satisfactory.	Satisfactory but accident study required.
D	43 to 56	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals¹ both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

¹ The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are also illustrated on Figure 4 and comprise:

- NO STOPPING restrictions along a small section on the northern side of Tangarra Street East, just west of the site
- generally UNRESTRICTED kerbside parking elsewhere in Tangarra Street East as well as both sides of Mitchell Street and throughout the local area, including along both site frontages.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's recently adopted *Development Control Plan Section 4.6, Table 4 – Car Parking Rates in Residential Zones* document in the following terms:

Multi-Dwelling Housing and Residential Flat Buildings (in Residential Zones)

1 bedroom apartments:	1 space per dwelling
2 bedroom apartments:	1 space per dwelling
3-bedroom apartments:	2 spaces per dwelling
Visitors:	1 space per 5 dwellings

Application of the above parking requirements to the potential for 239 dwellings on the site yields an off-street parking requirement of 311 parking spaces as set out below:

Residents (239 dwellings):	263.0 spaces
Visitors:	47.8 spaces
TOTAL:	310.8 spaces

Whilst the number of parking spaces to be provided is not yet known, it is envisaged that the parking requirements specified in Council's recently adopted *DCP* could be satisfied through

the provision of basement car parking, but this would be subject to a future development application.

Future vehicular access to the basement car parking facility is likely to be provided via two separate two-way driveways; one located at the eastern end of the Mitchell Street site frontage, the other located at the eastern end of the Tangarra Street East site frontage.

The geometric design layout of the proposed car parking facilities will be designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* in respect of parking bay dimensions, ramp gradients and aisle widths.

In summary, the proposed parking facilities can be designed to satisfy the relevant requirements specified in both Council's Parking Code as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.

APPENDIX A

TRAFFIC SURVEY DATA



R.O.A.R. DATA

Reliable, Original & Authentic Results

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Mobile.0418239019

Client : Varga Traffic Planning
 Job No/Name : 4281 ENFIELD Flower Power
 Day/Date : Friday 14th September 2012

PEDS	WEST	SOUTH	EAST	
Time Per	Mitchell St	Flower Power	Mitchell St	TOT
0630 - 0645	1	2	1	4
0645 - 0700	0	0	1	1
0700 - 0715	1	1	6	8
0715 - 0730	4	2	2	8
0730 - 0745	3	1	2	6
0745 - 0800	4	2	1	7
0800 - 0815	1	1	1	3
0815 - 0830	1	0	7	8
0830 - 0845	1	1	1	3
0845 - 0900	2	1	7	10
0900 - 0915	1	1	5	7
0915 - 0930	2	2	5	9
Per End	21	14	39	74

PEDS	WEST	SOUTH	EAST	
Peak Per	Mitchell St	Flower Power	Mitchell St	TOT
0630 - 0730	6	5	10	21
0645 - 0745	8	4	11	23
0700 - 0800	12	6	11	29
0715 - 0815	12	6	6	24
0730 - 0830	9	4	11	24
0745 - 0845	7	4	10	21
0800 - 0900	5	3	16	24
0815 - 0915	5	3	20	28
0830 - 0930	6	5	18	29
PEAK HR	6	5	18	29

Lights	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
0630 - 0645	29	3	0	2	2	26	62
0645 - 0700	16	2	0	0	2	13	33
0700 - 0715	32	6	0	3	3	26	70
0715 - 0730	36	3	2	2	3	21	67
0730 - 0745	34	4	2	3	1	22	66
0745 - 0800	62	7	2	0	2	26	99
0800 - 0815	52	5	3	5	4	37	106
0815 - 0830	56	5	4	1	4	43	113
0830 - 0845	54	8	6	4	7	49	128
0845 - 0900	32	9	7	5	8	50	111
0900 - 0915	37	14	5	8	10	45	119
0915 - 0930	38	9	10	10	16	38	121
Per End	478	75	41	43	62	396	1095

Heavies	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
0630 - 0645	0	0	0	0	0	0	0
0645 - 0700	1	1	0	0	0	0	2
0700 - 0715	0	0	0	0	0	0	0
0715 - 0730	1	0	1	0	0	0	2
0730 - 0745	0	0	0	0	0	0	0
0745 - 0800	0	1	0	0	0	0	1
0800 - 0815	1	0	0	0	1	0	2
0815 - 0830	0	0	1	0	0	0	1
0830 - 0845	0	0	0	0	0	0	0
0845 - 0900	0	0	0	0	0	0	0
0900 - 0915	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	0	0	0
Per End	3	2	2	0	1	0	8

Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
0630 - 0645	29	3	0	2	2	26	62
0645 - 0700	17	3	0	0	2	13	35
0700 - 0715	32	6	0	3	3	26	70
0715 - 0730	37	3	3	2	3	21	69
0730 - 0745	34	4	2	3	1	22	66
0745 - 0800	62	8	2	0	2	26	100
0800 - 0815	53	5	3	5	5	37	108
0815 - 0830	56	5	5	1	4	43	114
0830 - 0845	54	8	6	4	7	49	128
0845 - 0900	32	9	7	5	8	50	111
0900 - 0915	37	14	5	8	10	45	119
0915 - 0930	38	9	10	10	16	38	121
Per End	481	77	43	43	63	396	1103

Lights	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
0630 - 0730	113	14	2	7	10	86	232
0645 - 0745	118	15	4	8	9	82	236
0700 - 0800	164	20	6	8	9	95	302
0715 - 0815	184	19	9	10	10	106	338
0730 - 0830	204	21	11	9	11	128	384
0745 - 0845	224	25	15	10	17	155	446
0800 - 0900	194	27	20	15	23	179	458
0815 - 0915	179	36	22	18	29	187	471
0830 - 0930	161	40	28	27	41	182	479
PEAK HR	161	40	28	27	41	182	479

Heavies	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
0630 - 0730	2	1	1	0	0	0	4
0645 - 0745	2	1	1	0	0	0	4
0700 - 0800	1	1	1	0	0	0	3
0715 - 0815	2	1	1	0	1	0	5
0730 - 0830	1	1	1	0	1	0	4
0745 - 0845	1	1	1	0	1	0	4
0800 - 0900	1	0	1	0	1	0	3
0815 - 0915	0	0	1	0	0	0	1
0830 - 0930	0	0	0	0	0	0	0
PEAK HR	0	0	0	0	0	0	0

Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
0630 - 0730	115	15	3	7	10	86	236
0645 - 0745	120	16	5	8	9	82	240
0700 - 0800	165	21	7	8	9	95	305
0715 - 0815	186	20	10	10	11	106	343
0730 - 0830	205	22	12	9	12	128	388
0745 - 0845	225	26	16	10	18	155	450
0800 - 0900	195	27	21	15	24	179	461
0815 - 0915	179	36	23	18	29	187	472
0830 - 0930	161	40	28	27	41	182	479
PEAK HR	161	40	28	27	41	182	479



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849.

Mobile.0418239019

Client : Varga Traffic Planning
Job No/Name : 4281 ENFIELD Flower Power
Day/Date : Friday 14th September 2012

PEDS	WEST	NORTH	EAST	
Time Per	Tangarra St	Flower Power	Tangarra St	TOT
0630 - 0645	0	0	0	0
0645 - 0700	0	1	0	1
0700 - 0715	0	0	0	0
0715 - 0730	0	0	0	0
0730 - 0745	0	1	1	2
0745 - 0800	0	0	0	0
0800 - 0815	0	0	0	0
0815 - 0830	0	1	0	1
0830 - 0845	3	0	0	3
0845 - 0900	0	2	1	3
0900 - 0915	0	3	0	3
0915 - 0930	0	3	0	3
Per End	3	11	2	16

PEDS	WEST	NORTH	EAST	
Peak Per	Tangarra St	Flower Power	Tangarra St	TOT
0630 - 0730	0	1	0	1
0645 - 0745	0	2	1	3
0700 - 0800	0	1	1	2
0715 - 0815	0	1	1	2
0730 - 0830	0	2	1	3
0745 - 0845	3	1	0	4
0800 - 0900	3	3	1	7
0815 - 0915	3	6	1	10
0830 - 0930	3	8	1	12

PEAK HR	3	3	1	7
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Lights	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
0630 - 0645	8	0	0	0	0	6	14
0645 - 0700	6	0	0	0	0	4	10
0700 - 0715	4	0	0	0	0	4	8
0715 - 0730	9	0	0	0	0	9	18
0730 - 0745	17	0	0	0	0	11	28
0745 - 0800	4	0	0	0	0	3	7
0800 - 0815	8	0	0	0	0	7	15
0815 - 0830	11	0	0	1	0	22	34
0830 - 0845	7	0	0	0	0	9	16
0845 - 0900	8	0	0	0	0	13	21
0900 - 0915	4	0	0	1	1	8	14
0915 - 0930	6	0	1	1	0	6	14
Per End	92	0	1	3	1	102	199

Heavies	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
0630 - 0645	0	0	0	0	0	0	0
0645 - 0700	0	0	0	0	0	1	1
0700 - 0715	0	0	0	0	0	0	0
0715 - 0730	0	0	0	0	1	1	2
0730 - 0745	0	0	0	0	0	1	1
0745 - 0800	0	0	0	1	0	0	1
0800 - 0815	0	0	0	0	0	0	0
0815 - 0830	0	0	0	0	0	0	0
0830 - 0845	0	0	0	0	0	0	0
0845 - 0900	0	0	0	0	0	0	0
0900 - 0915	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	1	1	2
Per End	0	0	0	1	2	4	7

Combined	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
0630 - 0645	8	0	0	0	0	6	14
0645 - 0700	6	0	0	0	0	5	11
0700 - 0715	4	0	0	0	0	4	8
0715 - 0730	9	0	0	0	1	10	20
0730 - 0745	17	0	0	0	0	12	29
0745 - 0800	4	0	0	1	0	3	8
0800 - 0815	8	0	0	0	0	7	15
0815 - 0830	11	0	0	1	0	22	34
0830 - 0845	7	0	0	0	0	9	16
0845 - 0900	8	0	0	0	0	13	21
0900 - 0915	4	0	0	1	1	8	14
0915 - 0930	6	0	1	1	1	7	16
Per End	92	0	1	4	3	106	206

Lights	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Peak Per	I	L	R	L	R	I	TOT
0630 - 0730	27	0	0	0	0	23	50
0645 - 0745	36	0	0	0	0	28	64
0700 - 0800	34	0	0	0	0	27	61
0715 - 0815	38	0	0	0	0	30	68
0730 - 0830	40	0	0	1	0	43	84
0745 - 0845	30	0	0	1	0	41	72
0800 - 0900	34	0	0	1	0	51	86
0815 - 0915	30	0	0	2	1	52	85
0830 - 0930	25	0	1	2	1	36	65

Heavies	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Peak Per	I	L	R	L	R	I	TOT
0630 - 0730	0	0	0	0	1	2	3
0645 - 0745	0	0	0	0	1	3	4
0700 - 0800	0	0	0	1	1	2	4
0715 - 0815	0	0	0	1	1	2	4
0730 - 0830	0	0	0	1	0	1	2
0745 - 0845	0	0	0	1	0	0	1
0800 - 0900	0	0	0	0	0	0	0
0815 - 0915	0	0	0	0	0	0	0
0830 - 0930	0	0	0	0	1	1	2

Combined	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Peak Per	I	L	R	L	R	I	TOT
0630 - 0730	27	0	0	0	1	25	53
0645 - 0745	36	0	0	0	1	31	68
0700 - 0800	34	0	0	1	1	29	65
0715 - 0815	38	0	0	1	1	32	72
0730 - 0830	40	0	0	2	0	44	86
0745 - 0845	30	0	0	2	0	41	73
0800 - 0900	34	0	0	1	0	51	86
0815 - 0915	30	0	0	2	1	52	85
0830 - 0930	25	0	1	2	2	37	67

PEAK HR	34	0	0	1	0	51	86
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PEAK HR	0	0	0	0	0	0	0
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PEAK HR	34	0	0	1	0	51	86
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**R.O.A.R. DATA****Reliable, Original & Authentic Results**

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Client : Varga Traffic Planning
 Job No/Name : 4281 ENFIELD Flower Power
 Day/Date : Friday 14th September 2012

<u>Combined</u>	NORTH		
	<i>Mitchell St</i>		
Time Per	IN	OUT	TOT
0630 - 0645	5	2	7
0645 - 0700	5	0	5
0700 - 0715	9	3	12
0715 - 0730	6	5	11
0730 - 0745	5	5	10
0745 - 0800	10	2	12
0800 - 0815	10	8	18
0815 - 0830	9	6	15
0830 - 0845	15	10	25
0845 - 0900	17	12	29
0900 - 0915	24	13	37
0915 - 0930	25	20	45
Per End	140	86	226

<u>Combined</u>	SOUTH		
	<i>Tangarra St</i>		
Time Per	IN	OUT	TOT
0630 - 0645	0	0	0
0645 - 0700	0	0	0
0700 - 0715	0	0	0
0715 - 0730	1	0	1
0730 - 0745	0	0	0
0745 - 0800	0	1	1
0800 - 0815	0	0	0
0815 - 0830	0	1	1
0830 - 0845	0	0	0
0845 - 0900	0	0	0
0900 - 0915	1	1	2
0915 - 0930	1	2	3
Per End	3	5	8

<u>Combined</u>	COMBINED		
	<i>Both Access</i>		
Time Per	IN	OUT	TOT
0630 - 0645	5	2	7
0645 - 0700	5	0	5
0700 - 0715	9	3	12
0715 - 0730	7	5	12
0730 - 0745	5	5	10
0745 - 0800	10	3	13
0800 - 0815	10	8	18
0815 - 0830	9	7	16
0830 - 0845	15	10	25
0845 - 0900	17	12	29
0900 - 0915	25	14	39
0915 - 0930	26	22	48
Per End	143	91	234

<u>Combined</u>	NORTH		
	<i>Mitchell St</i>		
Peak Per	IN	OUT	TOT
0630 - 0730	25	10	35
0645 - 0745	25	13	38
0700 - 0800	30	15	45
0715 - 0815	31	20	51
0730 - 0830	34	21	55
0745 - 0845	44	26	70
0800 - 0900	51	36	87
0815 - 0915	65	41	106
0830 - 0930	81	55	136

<u>Combined</u>	SOUTH		
	<i>Tangarra St</i>		
Peak Per	IN	OUT	TOT
0630 - 0730	1	0	1
0645 - 0745	1	0	1
0700 - 0800	1	1	2
0715 - 0815	1	1	2
0730 - 0830	0	2	2
0745 - 0845	0	2	2
0800 - 0900	0	1	1
0815 - 0915	1	2	3
0830 - 0930	2	3	5

<u>Combined</u>	COMBINED		
	<i>Both Access</i>		
Peak Per	IN	OUT	TOT
0630 - 0730	26	10	36
0645 - 0745	26	13	39
0700 - 0800	31	16	47
0715 - 0815	32	21	53
0730 - 0830	34	23	57
0745 - 0845	44	28	72
0800 - 0900	51	37	88
0815 - 0915	66	43	109
0830 - 0930	83	58	141

PEAK HR	81	55	136
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PEAK HR	2	3	5
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PEAK HR	83	58	141
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Mobile.0418239019

Client : Varga Traffic Planning
Job No/Name : 4281 ENFIELD Flower Power
Day/Date : Friday 14th September 2012

PEDS	WEST	SOUTH	EAST	
Time Per	Mitchell St	Flower Power	Mitchell St	TOT
1530 - 1545	3	1	7	11
1545 - 1600	0	0	3	3
1600 - 1615	6	1	1	8
1615 - 1630	6	0	2	8
1630 - 1645	1	3	2	6
1645 - 1700	1	1	1	3
1700 - 1715	8	0	5	13
1715 - 1730	0	2	1	3
1730 - 1745	2	2	5	9
1745 - 1800	2	1	2	5
1800 - 1815	1	3	3	7
1815 - 1830	1	2	0	3
Per End	31	16	32	79

PEDS	WEST	SOUTH	EAST	
Peak Per	Mitchell St	Flower Power	Mitchell St	TOT
1530 - 1630	15	2	13	30
1545 - 1645	13	4	8	25
1600 - 1700	14	5	6	25
1615 - 1715	16	4	10	30
1630 - 1730	10	6	9	25
1645 - 1745	11	5	12	28
1700 - 1800	12	5	13	30
1715 - 1815	5	8	11	24
1730 - 1830	6	8	10	24
PEAK HR	10	6	9	25

Lights	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1530 - 1545	29	9	20	13	14	48	133
1545 - 1600	28	7	18	20	11	58	142
1600 - 1615	25	17	8	8	13	48	119
1615 - 1630	32	8	11	19	13	58	141
1630 - 1645	41	8	19	9	13	61	151
1645 - 1700	40	4	7	14	10	60	135
1700 - 1715	48	3	8	10	8	66	143
1715 - 1730	50	5	4	8	4	71	142
1730 - 1745	54	4	10	4	1	66	139
1745 - 1800	33	4	5	4	1	53	100
1800 - 1815	40	0	11	0	0	58	109
1815 - 1830	34	0	0	1	0	45	80
Per End	454	69	121	110	88	692	1534

Heavies	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1530 - 1545	0	0	0	0	0	0	0
1545 - 1600	0	0	0	0	0	0	0
1600 - 1615	0	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	0	0	0
1700 - 1715	1	0	0	0	0	1	2
1715 - 1730	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0
1800 - 1815	0	0	0	0	0	0	0
1815 - 1830	0	0	0	0	0	0	0
Per End	1	0	0	0	0	1	2

Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1530 - 1545	29	9	20	13	14	48	133
1545 - 1600	28	7	18	20	11	58	142
1600 - 1615	25	17	8	8	13	48	119
1615 - 1630	32	8	11	19	13	58	141
1630 - 1645	41	8	19	9	13	61	151
1645 - 1700	40	4	7	14	10	60	135
1700 - 1715	49	3	8	10	8	67	145
1715 - 1730	50	5	4	8	4	71	142
1730 - 1745	54	4	10	4	1	66	139
1745 - 1800	33	4	5	4	1	53	100
1800 - 1815	40	0	11	0	0	58	109
1815 - 1830	34	0	0	1	0	45	80
Per End	455	69	121	110	88	693	1536

Lights	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
1530 - 1630	114	41	57	60	51	212	535
1545 - 1645	126	40	56	56	50	225	553
1600 - 1700	138	37	45	50	49	227	546
1615 - 1715	161	23	45	52	44	245	570
1630 - 1730	179	20	38	41	35	258	571
1645 - 1745	192	16	29	36	23	263	559
1700 - 1800	185	16	27	26	14	256	524
1715 - 1815	177	13	30	16	6	248	490
1730 - 1830	161	8	26	9	2	222	428
PEAK HR	179	20	38	41	35	258	571

Heavies	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
1530 - 1630	0	0	0	0	0	0	0
1545 - 1645	0	0	0	0	0	0	0
1600 - 1700	0	0	0	0	0	0	0
1615 - 1715	1	0	0	0	0	1	2
1630 - 1730	1	0	0	0	0	1	2
1645 - 1745	1	0	0	0	0	1	2
1700 - 1800	1	0	0	0	0	1	2
1715 - 1815	0	0	0	0	0	0	0
1730 - 1830	0	0	0	0	0	0	0
PEAK HR	1	0	0	0	0	1	2

Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT
1530 - 1630	114	41	57	60	51	212	535
1545 - 1645	126	40	56	56	50	225	553
1600 - 1700	138	37	45	50	49	227	546
1615 - 1715	162	23	45	52	44	246	572
1630 - 1730	180	20	38	41	35	259	573
1645 - 1745	193	16	29	36	23	264	561
1700 - 1800	186	16	27	26	14	257	526
1715 - 1815	177	13	30	16	6	248	490
1730 - 1830	161	8	26	9	2	222	428
PEAK HR	180	20	38	41	35	259	573



R.O.A.R. DATA

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Mobile.0418239019

Client : Varga Traffic Planning
 Job No/Name : 4281 ENFIELD Flower Power
 Day/Date : Friday 14th September 2012

PEDS	WEST	NORTH	EAST	
Time Per	Tangarra St	Flower Power	Tangarra St	TOT
1530 - 1545	0	0	5	5
1545 - 1600	0	0	0	0
1600 - 1615	0	1	3	4
1615 - 1630	1	1	4	6
1630 - 1645	2	0	6	8
1645 - 1700	0	0	3	3
1700 - 1715	0	0	1	1
1715 - 1730	1	0	0	1
1730 - 1745	0	0	0	0
1745 - 1800	0	0	0	0
1800 - 1815	0	1	0	1
1815 - 1830	0	2	1	3
Per End	4	5	23	32

PEDS	WEST	NORTH	EAST	
Peak Per	Tangarra St	Flower Power	Tangarra St	TOT
1530 - 1630	1	2	12	15
1545 - 1645	3	2	13	18
1600 - 1700	3	2	16	21
1615 - 1715	3	1	14	18
1630 - 1730	3	0	10	13
1645 - 1745	1	0	4	5
1700 - 1800	1	0	1	2
1715 - 1815	1	1	0	2
1730 - 1830	0	3	1	4
PEAK HR	3	2	16	21

Lights	WEST		NORTH		EAST		
Time Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1545	I	L	R	L	R	I	25
1545 - 1600	8	0	1	0	0	16	16
1600 - 1615	5	0	0	0	0	15	23
1615 - 1630	8	0	0	0	0	15	23
1630 - 1645	6	0	1	1	0	13	25
1645 - 1700	11	0	1	0	0	15	25
1700 - 1715	8	0	1	1	0	12	19
1715 - 1730	6	0	0	1	0	17	20
1730 - 1745	3	0	0	0	0	15	22
1745 - 1800	7	0	0	0	0	10	19
1800 - 1815	9	0	0	0	0	16	26
1815 - 1830	10	0	0	0	0	15	25
Per End	91	0	4	3	0	170	268

Heavies	WEST		NORTH		EAST		
Time Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1545	I	L	R	L	R	I	0
1545 - 1600	0	0	0	0	0	0	1
1600 - 1615	1	0	0	0	0	0	0
1615 - 1630	0	0	0	0	0	0	0
1630 - 1645	0	0	0	0	0	0	0
1645 - 1700	0	0	0	0	1	1	2
1700 - 1715	0	0	0	1	0	0	1
1715 - 1730	0	0	0	0	0	0	0
1730 - 1745	0	0	0	0	0	0	0
1745 - 1800	0	0	0	0	0	0	0
1800 - 1815	0	0	0	0	0	0	0
1815 - 1830	0	0	0	0	0	0	0
Per End	1	0	0	1	1	1	4

Combined	WEST		NORTH		EAST		
Time Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1545	I	L	R	L	R	I	25
1545 - 1600	8	0	1	0	0	16	17
1600 - 1615	6	0	0	0	0	15	23
1615 - 1630	8	0	0	0	0	15	23
1630 - 1645	6	0	1	1	0	13	25
1645 - 1700	11	0	1	0	0	16	27
1700 - 1715	8	0	1	1	1	12	20
1715 - 1730	6	0	0	2	0	17	20
1730 - 1745	3	0	0	0	0	15	22
1745 - 1800	7	0	0	0	0	10	19
1800 - 1815	9	0	0	0	0	16	26
1815 - 1830	10	0	0	0	0	15	25
Per End	92	0	4	4	1	171	272

Lights	WEST		NORTH		EAST		
Peak Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1630	I	L	R	L	R	I	87
1545 - 1645	27	0	2	1	0	57	87
1600 - 1700	30	0	2	1	0	54	96
1615 - 1715	33	0	3	2	0	58	92
1630 - 1730	31	0	3	3	0	55	89
1645 - 1745	28	0	2	2	0	57	86
1700 - 1800	24	0	1	2	0	54	80
1715 - 1815	25	0	0	1	0	58	92
1730 - 1830	29	0	0	0	0	56	96
PEAK HR	33	0	3	2	0	58	96

Heavies	WEST		NORTH		EAST		
Peak Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1630	I	L	R	L	R	I	1
1545 - 1645	1	0	0	0	0	0	1
1600 - 1700	1	0	0	0	1	1	2
1615 - 1715	0	0	0	1	1	1	3
1630 - 1730	0	0	0	1	1	1	3
1645 - 1745	0	0	0	1	1	1	3
1700 - 1800	0	0	0	1	0	0	1
1715 - 1815	0	0	0	0	0	0	0
1730 - 1830	0	0	0	0	0	0	0
PEAK HR	0	0	0	0	1	1	2

Combined	WEST		NORTH		EAST		
Peak Per	Tangarra St		Flower Power		Tangarra St		TOT
1530 - 1630	I	L	R	L	R	I	88
1545 - 1645	28	0	2	1	0	57	88
1600 - 1700	31	0	2	1	0	54	98
1615 - 1715	33	0	3	2	1	59	95
1630 - 1730	31	0	3	4	1	56	92
1645 - 1745	28	0	2	3	1	58	89
1700 - 1800	24	0	1	3	1	60	81
1715 - 1815	25	0	0	2	0	54	87
1730 - 1830	29	0	0	0	0	56	92
PEAK HR	33	0	3	2	1	59	98

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Client : Varga Traffic Planning

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Day/Date : Friday 14th September 2012

<u>Combined</u>	NORTH		
	<i>Mitchell St</i>		
Time Per	IN	OUT	TOT
1530 - 1545	23	33	56
1545 - 1600	18	38	56
1600 - 1615	30	16	46
1615 - 1630	21	30	51
1630 - 1645	21	28	49
1645 - 1700	14	21	35
1700 - 1715	11	18	29
1715 - 1730	9	12	21
1730 - 1745	5	14	19
1745 - 1800	5	9	14
1800 - 1815	0	11	11
1815 - 1830	0	1	1
Per End	157	231	388

<u>Combined</u>	NORTH		
	<i>Mitchell St</i>		
Peak Per	IN	OUT	TOT
1530 - 1630	92	117	209
1545 - 1645	90	112	202
1600 - 1700	86	95	181
1615 - 1715	67	97	164
1630 - 1730	55	79	134
1645 - 1745	39	65	104
1700 - 1800	30	53	83
1715 - 1815	19	46	65
1730 - 1830	10	35	45
PEAK HR	92	117	209

<u>Combined</u>	SOUTH		
	<i>Tangarra St</i>		
Time Per	IN	OUT	TOT
1530 - 1545	0	1	1
1545 - 1600	0	0	0
1600 - 1615	0	0	0
1615 - 1630	0	2	2
1630 - 1645	0	1	1
1645 - 1700	1	2	3
1700 - 1715	0	2	2
1715 - 1730	0	0	0
1730 - 1745	0	0	0
1745 - 1800	0	0	0
1800 - 1815	0	0	0
1815 - 1830	0	0	0
Per End	1	8	9

<u>Combined</u>	SOUTH		
	<i>Tangarra St</i>		
Peak Per	IN	OUT	TOT
1530 - 1630	0	3	3
1545 - 1645	0	3	3
1600 - 1700	1	5	6
1615 - 1715	1	7	8
1630 - 1730	1	5	6
1645 - 1745	1	4	5
1700 - 1800	0	2	2
1715 - 1815	0	0	0
1730 - 1830	0	0	0
PEAK HR	0	3	3

	COMBINED		
	<i>Both Access</i>		
Time Per	IN	OUT	TOT
1530 - 1545	23	34	57
1545 - 1600	18	38	56
1600 - 1615	30	16	46
1615 - 1630	21	32	53
1630 - 1645	21	29	50
1645 - 1700	15	23	38
1700 - 1715	11	20	31
1715 - 1730	9	12	21
1730 - 1745	5	14	19
1745 - 1800	5	9	14
1800 - 1815	0	11	11
1815 - 1830	0	1	1
Per End	158	239	397

	COMBINED		
	<i>Both Access</i>		
Peak Per	IN	OUT	TOT
1530 - 1630	92	120	212
1545 - 1645	90	115	205
1600 - 1700	87	100	187
1615 - 1715	68	104	172
1630 - 1730	56	84	140
1645 - 1745	40	69	109
1700 - 1800	30	55	85
1715 - 1815	19	46	65
1730 - 1830	10	35	45
PEAK HR	92	120	212



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849.

Mobile.0418239019

Client : Varga Traffic Planning
 Job No/Name : 4281 ENFIELD Flower Power
 Day/Date : Saturday 15th September 2012

PEDS	WEST	SOUTH	EAST	
Time Per	Mitchell St	Flower Power	Mitchell St	TOT
1000 - 1015	5	0	0	5
1015 - 1030	2	3	2	7
1030 - 1045	1	2	2	5
1045 - 1100	7	6	2	15
1100 - 1115	1	12	2	15
1115 - 1130	2	2	2	6
1130 - 1145	2	4	2	8
1145 - 1200	2	2	1	5
1200 - 1215	0	0	0	0
1215 - 1230	0	3	0	3
1230 - 1245	0	2	2	4
1245 - 1300	0	6	2	8
1300 - 1315	0	1	1	2
1315 - 1330	0	3	0	3
1330 - 1345	0	0	0	0
1345 - 1400	0	0	0	0
1400 - 1415	0	0	0	0
1415 - 1430	0	0	0	0
1430 - 1445	0	3	0	3
1445 - 1500	0	1	0	1
Per End	22	50	18	90

PEDS	WEST	SOUTH	EAST	
Peak Per	Mitchell St	Flower Power	Mitchell St	TOT
1000 - 1100	15	11	6	32
1015 - 1115	11	23	8	42
1030 - 1130	11	22	8	41
1045 - 1145	12	24	8	44
1100 - 1200	7	20	7	34
1115 - 1215	6	8	5	19
1130 - 1230	4	9	3	16
1145 - 1245	2	7	3	12
1200 - 1300	0	11	4	15
1215 - 1315	0	12	5	17
1230 - 1330	0	12	5	17
1245 - 1345	0	10	3	13
1300 - 1400	0	4	1	5
1315 - 1415	0	3	0	3
1330 - 1430	0	0	0	0
1345 - 1445	0	3	0	3
1400 - 1500	0	4	0	4
PEAK HR	0	12	5	17

Lights	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1000 - 1015	35	24	15	22	21	26	143
1015 - 1030	43	17	19	15	20	41	155
1030 - 1045	41	18	12	15	31	45	162
1045 - 1100	50	25	27	17	44	38	201
1100 - 1115	33	32	25	23	33	34	180
1115 - 1130	24	26	32	20	26	36	164
1130 - 1145	31	18	23	23	29	42	166
1145 - 1200	34	25	38	24	40	25	186
1200 - 1215	33	22	22	24	34	39	174
1215 - 1230	41	23	23	34	21	28	170
1230 - 1245	44	16	23	32	32	41	188
1245 - 1300	46	10	19	23	35	50	183
1300 - 1315	37	23	22	22	31	55	190
1315 - 1330	26	17	18	23	25	44	153
1330 - 1345	26	20	17	19	27	30	139
1345 - 1400	44	16	21	21	23	27	152
1400 - 1415	39	17	19	16	32	54	177
1415 - 1430	36	30	25	23	30	45	189
1430 - 1445	18	12	21	27	28	33	139
1445 - 1500	19	13	17	17	18	40	124
Per End	700	404	438	440	580	773	3335

Heavies	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1000 - 1015	0	0	0	0	0	0	0
1015 - 1030	0	0	0	0	0	0	0
1030 - 1045	0	0	0	0	0	0	0
1045 - 1100	0	0	0	0	0	0	0
1100 - 1115	0	0	0	0	0	0	0
1115 - 1130	0	0	0	0	0	0	0
1130 - 1145	0	0	0	0	0	0	0
1145 - 1200	0	0	0	0	0	0	0
1200 - 1215	0	0	0	0	0	0	0
1215 - 1230	0	0	0	0	0	0	0
1230 - 1245	0	0	0	0	0	0	0
1245 - 1300	0	0	0	0	0	0	0
1300 - 1315	0	0	0	0	0	0	0
1315 - 1330	0	0	0	0	0	0	0
1330 - 1345	0	0	0	0	0	0	0
1345 - 1400	0	0	0	0	0	0	0
1400 - 1415	0	0	0	0	0	0	0
1415 - 1430	0	0	0	0	0	0	0
1430 - 1445	0	0	0	0	0	0	0
1445 - 1500	0	0	0	0	0	0	0
Per End	0	0	0	0	0	0	0

Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St		
Time Per	I	R	L	R	L	I	TOT
1000 - 1015	35	24	15	22	21	26	143
1015 - 1030	43	17	19	15	20	41	155
1030 - 1045	41	18	12	15	31	45	162
1045 - 1100	50	25	27	17	44	38	201
1100 - 1115	33	32	25	23	33	34	180
1115 - 1130	24	26	32	20	26	36	164
1130 - 1145	31	18	23	23	29	42	166
1145 - 1200	34	25	38	24	40	25	186
1200 - 1215	33	22	22	24	34	39	174
1215 - 1230	41	23	23	34	21	28	170
1230 - 1245	44	16	23	32	32	41	188
1245 - 1300	46	10	19	23	35	50	183
1300 - 1315	37	23	22	22	31	55	190
1315 - 1330	26	17	18	23	25	44	153
1330 - 1345	26	20	17	19	27	30	139
1345 - 1400	44	16	21	21	23	27	152
1400 - 1415	39	17	19	16	32	54	177
1415 - 1430	36	30	25	23	30	45	189
1430 - 1445	18	12	21	27	28	33	139
1445 - 1500	19	13	17	17	18	40	124
Per End	700	404	438	440	580	773	3335



R.O.A.R. DATA

Reliable, Original & Authentic Results

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Client : Varga Traffic Planning

Job No/Name : 4281 ENFIELD Flower Power

Day/Date : Saturday 15th September 2012

Lights	WEST		SOUTH		EAST			Heavies	WEST		SOUTH		EAST			Combined	WEST		SOUTH		EAST		
	Mitchell St		Flower Power		Mitchell St				Mitchell St		Flower Power		Mitchell St				Mitchell St		Flower Power		Mitchell St		
Peak Per	I	R	L	R	L	I	TOT	Peak Per	I	R	L	R	L	I	TOT	Peak Per	I	R	L	R	L	I	TOT
1000 - 1100	169	84	73	69	116	150	661	1000 - 1100	0	0	0	0	0	0	0	1000 - 1100	169	84	73	69	116	150	661
1015 - 1115	167	92	83	70	128	158	698	1015 - 1115	0	0	0	0	0	0	0	1015 - 1115	167	92	83	70	128	158	698
1030 - 1130	148	101	96	75	134	153	707	1030 - 1130	0	0	0	0	0	0	0	1030 - 1130	148	101	96	75	134	153	707
1045 - 1145	138	101	107	83	132	150	711	1045 - 1145	0	0	0	0	0	0	0	1045 - 1145	138	101	107	83	132	150	711
1100 - 1200	122	101	118	90	128	137	696	1100 - 1200	0	0	0	0	0	0	0	1100 - 1200	122	101	118	90	128	137	696
1115 - 1215	122	91	115	91	129	142	690	1115 - 1215	0	0	0	0	0	0	0	1115 - 1215	122	91	115	91	129	142	690
1130 - 1230	139	88	106	105	124	134	696	1130 - 1230	0	0	0	0	0	0	0	1130 - 1230	139	88	106	105	124	134	696
1145 - 1245	152	86	106	114	127	133	718	1145 - 1245	0	0	0	0	0	0	0	1145 - 1245	152	86	106	114	127	133	718
1200 - 1300	164	71	87	113	122	158	715	1200 - 1300	0	0	0	0	0	0	0	1200 - 1300	164	71	87	113	122	158	715
1215 - 1315	168	72	87	111	119	174	731	1215 - 1315	0	0	0	0	0	0	0	1215 - 1315	168	72	87	111	119	174	731
1230 - 1330	153	66	82	100	123	190	714	1230 - 1330	0	0	0	0	0	0	0	1230 - 1330	153	66	82	100	123	190	714
1245 - 1345	135	70	76	87	118	179	665	1245 - 1345	0	0	0	0	0	0	0	1245 - 1345	135	70	76	87	118	179	665
1300 - 1400	133	76	78	85	106	156	634	1300 - 1400	0	0	0	0	0	0	0	1300 - 1400	133	76	78	85	106	156	634
1315 - 1415	135	70	75	79	107	155	621	1315 - 1415	0	0	0	0	0	0	0	1315 - 1415	135	70	75	79	107	155	621
1330 - 1430	145	83	82	79	112	156	657	1330 - 1430	0	0	0	0	0	0	0	1330 - 1430	145	83	82	79	112	156	657
1345 - 1445	137	75	86	87	113	159	657	1345 - 1445	0	0	0	0	0	0	0	1345 - 1445	137	75	86	87	113	159	657
1400 - 1500	112	72	82	83	108	172	629	1400 - 1500	0	0	0	0	0	0	0	1400 - 1500	112	72	82	83	108	172	629
PEAK HR	168	72	87	111	119	174	731	PEAK HR	0	0	0	0	0	0	0	PEAK HR	168	72	87	111	119	174	731



R.O.A.R. DATA

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Mobile.0418239019

Client : Varga Traffic Planning
 Job No/Name : 4281 ENFIELD Flower Power
 Day/Date : Saturday 15th September 2012

PEDS	WEST	NORTH	EAST	
Time Per	Tangarra St	Flower Power	Tangarra St	TOT
1000 - 1015	0	1	2	3
1015 - 1030	1	1	2	4
1030 - 1045	3	1	1	5
1045 - 1100	1	1	4	6
1100 - 1115	0	0	2	2
1115 - 1130	1	0	1	2
1130 - 1145	1	4	4	9
1145 - 1200	0	0	1	1
1200 - 1215	1	1	2	4
1215 - 1230	0	0	2	2
1230 - 1245	2	0	1	3
1245 - 1300	2	0	1	3
1300 - 1315	3	1	0	4
1315 - 1330	2	0	1	3
1330 - 1345	0	0	0	0
1345 - 1400	1	0	0	1
1400 - 1415	1	0	0	1
1415 - 1430	2	1	0	3
1430 - 1445	1	1	0	2
1445 - 1500	0	0	0	0
Per End	22	12	24	58

PEDS	WEST	NORTH	EAST	
Peak Per	Tangarra St	Flower Power	Tangarra St	TOT
1000 - 1100	5	4	9	18
1015 - 1115	5	3	9	17
1030 - 1130	5	2	8	15
1045 - 1145	3	5	11	19
1100 - 1200	2	4	8	14
1115 - 1215	3	5	8	16
1130 - 1230	2	5	9	16
1145 - 1245	3	1	6	10
1200 - 1300	5	1	6	12
1215 - 1315	7	1	4	12
1230 - 1330	9	1	3	13
1245 - 1345	7	1	2	10
1300 - 1400	6	1	1	8
1315 - 1415	4	0	1	5
1330 - 1430	4	1	0	5
1345 - 1445	5	2	0	7
1400 - 1500	4	2	0	6
PEAK HR	3	5	8	16

Lights	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
1000 - 1015	6	0	1	2	1	9	19
1015 - 1030	10	0	1	2	0	10	23
1030 - 1045	8	0	1	1	0	12	22
1045 - 1100	2	0	3	1	1	11	18
1100 - 1115	8	0	0	4	0	9	21
1115 - 1130	7	1	1	5	0	9	23
1130 - 1145	8	1	4	2	1	5	21
1145 - 1200	11	0	2	3	0	10	26
1200 - 1215	9	0	1	5	1	9	25
1215 - 1230	6	0	0	0	0	12	18
1230 - 1245	11	1	2	1	0	9	24
1245 - 1300	6	0	2	2	0	13	23
1300 - 1315	5	0	2	0	0	12	19
1315 - 1330	8	0	2	2	0	10	22
1330 - 1345	11	0	0	2	0	9	22
1345 - 1400	10	0	1	0	0	7	18
1400 - 1415	7	0	1	2	0	10	20
1415 - 1430	12	0	2	1	1	3	19
1430 - 1445	8	0	1	2	0	11	22
1445 - 1500	4	0	2	1	0	6	13
Per End	157	3	29	38	5	186	418

Heavies	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
1000 - 1015	0	0	0	0	0	0	0
1015 - 1030	0	0	0	0	0	0	0
1030 - 1045	0	0	0	0	0	0	0
1045 - 1100	0	0	0	0	0	0	0
1100 - 1115	0	0	0	0	0	0	0
1115 - 1130	0	0	0	0	0	0	0
1130 - 1145	0	0	0	0	0	0	0
1145 - 1200	0	0	0	0	0	0	0
1200 - 1215	0	0	0	0	0	0	0
1215 - 1230	0	0	0	0	0	0	0
1230 - 1245	1	0	0	0	0	0	1
1245 - 1300	0	0	0	0	0	0	0
1300 - 1315	0	0	0	0	0	0	0
1315 - 1330	0	0	0	0	0	0	0
1330 - 1345	0	0	0	0	0	0	0
1345 - 1400	0	0	0	0	0	0	0
1400 - 1415	0	0	0	0	0	0	0
1415 - 1430	0	0	0	0	0	0	0
1430 - 1445	0	0	0	0	0	0	0
1445 - 1500	0	0	0	0	0	0	0
Per End	1	0	0	0	0	0	1

Combined	WEST		NORTH		EAST		
	Tangarra St		Flower Power		Tangarra St		
Time Per	I	L	R	L	R	I	TOT
1000 - 1015	6	0	1	2	1	9	19
1015 - 1030	10	0	1	2	0	10	23
1030 - 1045	8	0	1	1	0	12	22
1045 - 1100	2	0	3	1	1	11	18
1100 - 1115	8	0	0	4	0	9	21
1115 - 1130	7	1	1	5	0	9	23
1130 - 1145	8	1	4	2	1	5	21
1145 - 1200	11	0	2	3	0	10	26
1200 - 1215	9	0	1	5	1	9	25
1215 - 1230	6	0	0	3	0	12	18
1230 - 1245	12	1	2	1	0	9	25
1245 - 1300	6	0	2	2	0	13	23
1300 - 1315	5	0	2	0	0	12	19
1315 - 1330	8	0	2	2	0	10	22
1330 - 1345	11	0	0	2	0	9	22
1345 - 1400	10	0	1	0	0	7	18
1400 - 1415	7	0	1	2	0	10	20
1415 - 1430	12	0	2	1	1	3	19
1430 - 1445	8	0	1	2	0	11	22
1445 - 1500	4	0	2	1	0	6	13
Per End	158	3	29	41	5	186	419



R.O.A.R. DATA

Reliable, Original & Authentic Results

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Client : Varga Traffic Planning

Job No/Name : 4281 ENFIELD Flower Power

Day/Date : Saturday 15th September 2012

Lights	WEST		NORTH		EAST					Heavies		WEST		NORTH		EAST					Combined	WEST		NORTH		EAST					
	Tangarra St		Flower Power		Tangarra St					Tangarra St		Flower Power		Tangarra St																	
Peak Per	I	L	R	L	R	I	TOT				Peak Per	I	L	R	L	R	I	TOT			Peak Per	I	L	R	L	R	I	TOT			
1000 - 1100	26	0	6	6	2	42	82				1000 - 1100	0	0	0	0	0	0	0			1000 - 1100	26	0	6	6	2	42	82			
1015 - 1115	28	0	5	8	1	42	84				1015 - 1115	0	0	0	0	0	0	0			1015 - 1115	28	0	5	8	1	42	84			
1030 - 1130	25	1	5	11	1	41	84				1030 - 1130	0	0	0	0	0	0	0			1030 - 1130	25	1	5	11	1	41	84			
1045 - 1145	25	2	8	12	2	34	83				1045 - 1145	0	0	0	0	0	0	0			1045 - 1145	25	2	8	12	2	34	83			
1100 - 1200	34	2	7	14	1	33	91				1100 - 1200	0	0	0	0	0	0	0			1100 - 1200	34	2	7	14	1	33	91			
1115 - 1215	35	2	8	15	2	33	95				1115 - 1215	0	0	0	0	0	0	0			1115 - 1215	35	2	8	15	2	33	95			
1130 - 1230	34	1	7	10	2	36	90				1130 - 1230	0	0	0	0	0	0	0			1130 - 1230	34	1	7	13	2	36	93			
1145 - 1245	37	1	5	9	1	40	93				1145 - 1245	1	0	0	0	0	0	0	1		1145 - 1245	38	1	5	12	1	40	97			
1200 - 1300	32	1	5	8	1	43	90				1200 - 1300	1	0	0	0	0	0	0	1		1200 - 1300	33	1	5	11	1	43	94			
1215 - 1315	28	1	6	3	0	46	84				1215 - 1315	1	0	0	0	0	0	0	1		1215 - 1315	29	1	6	6	0	46	88			
1230 - 1330	30	1	8	5	0	44	88				1230 - 1330	1	0	0	0	0	0	0	1		1230 - 1330	31	1	8	5	0	44	89			
1245 - 1345	30	0	6	6	0	44	86				1245 - 1345	0	0	0	0	0	0	0	0		1245 - 1345	30	0	6	6	0	44	86			
1300 - 1400	34	0	5	4	0	38	81				1300 - 1400	0	0	0	0	0	0	0	0		1300 - 1400	34	0	5	4	0	38	81			
1315 - 1415	36	0	4	6	0	36	82				1315 - 1415	0	0	0	0	0	0	0	0		1315 - 1415	36	0	4	6	0	36	82			
1330 - 1430	40	0	4	5	1	29	79				1330 - 1430	0	0	0	0	0	0	0	0		1330 - 1430	40	0	4	5	1	29	79			
1345 - 1445	37	0	5	5	1	31	79				1345 - 1445	0	0	0	0	0	0	0	0		1345 - 1445	37	0	5	5	1	31	79			
1400 - 1500	31	0	6	6	1	30	74				1400 - 1500	0	0	0	0	0	0	0	0		1400 - 1500	31	0	6	6	1	30	74			
PEAK HR	35	2	8	15	2	33	95				PEAK HR	0	0	0	0	0	0	0			PEAK HR	35	2	8	15	2	33	95			

**R.O.A.R. DATA****Reliable, Original & Authentic Results**

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Client : Varga Traffic Planning

Job No/Name : 4281 ENFIELD Flower Power

Day/Date : Saturday 15th September 2012

<u>Combined</u>	<u>NORTH</u>		
	<u>Mitchell St</u>		
<u>Time Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1015	45	37	82
1015 - 1030	37	34	71
1030 - 1045	49	27	76
1045 - 1100	69	44	113
1100 - 1115	65	48	113
1115 - 1130	52	52	104
1130 - 1145	47	46	93
1145 - 1200	65	62	127
1200 - 1215	56	46	102
1215 - 1230	44	57	101
1230 - 1245	48	55	103
1245 - 1300	45	42	87
1300 - 1315	54	44	98
1315 - 1330	42	41	83
1330 - 1345	47	36	83
1345 - 1400	39	42	81
1400 - 1415	49	35	84
1415 - 1430	60	48	108
1430 - 1445	40	48	88
1445 - 1500	31	34	65
Per End	984	878	1862

<u>Combined</u>	<u>NORTH</u>		
	<u>Mitchell St</u>		
<u>Peak Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1100	200	142	342
1015 - 1115	220	153	373
1030 - 1130	235	171	406
1045 - 1145	233	190	423
1100 - 1200	229	208	437
1115 - 1215	220	206	426
1130 - 1230	212	211	423
1145 - 1245	213	220	433
1200 - 1300	193	200	393
1215 - 1315	191	198	389
1230 - 1330	189	182	371
1245 - 1345	188	163	351
1300 - 1400	182	163	345
1315 - 1415	177	154	331
1330 - 1430	195	161	356
1345 - 1445	188	173	361
1400 - 1500	180	165	345

PEAK HR	229	208	437
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<u>Combined</u>	<u>SOUTH</u>		
	<u>Tangarra St</u>		
<u>Time Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1015	1	3	4
1015 - 1030	0	3	3
1030 - 1045	0	2	2
1045 - 1100	1	4	5
1100 - 1115	0	4	4
1115 - 1130	1	6	7
1130 - 1145	2	6	8
1145 - 1200	0	5	5
1200 - 1215	1	6	7
1215 - 1230	0	3	3
1230 - 1245	1	3	4
1245 - 1300	0	4	4
1300 - 1315	0	2	2
1315 - 1330	0	4	4
1330 - 1345	0	2	2
1345 - 1400	0	1	1
1400 - 1415	0	3	3
1415 - 1430	1	3	4
1430 - 1445	0	3	3
1445 - 1500	0	3	3
Per End	8	70	78

<u>Combined</u>	<u>SOUTH</u>		
	<u>Tangarra St</u>		
<u>Peak Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1100	2	12	14
1015 - 1115	1	13	14
1030 - 1130	2	16	18
1045 - 1145	4	20	24
1100 - 1200	3	21	24
1115 - 1215	4	23	27
1130 - 1230	3	20	23
1145 - 1245	2	17	19
1200 - 1300	2	16	18
1215 - 1315	1	12	13
1230 - 1330	1	13	14
1245 - 1345	0	12	12
1300 - 1400	0	9	9
1315 - 1415	0	10	10
1330 - 1430	1	9	10
1345 - 1445	1	10	11
1400 - 1500	1	12	13

PEAK HR	3	21	24
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<u>COMBINED</u>	<u>Both Access</u>		
	<u>IN</u>	<u>OUT</u>	
<u>Time Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1015	46	40	86
1015 - 1030	37	37	74
1030 - 1045	49	29	78
1045 - 1100	70	48	118
1100 - 1115	65	52	117
1115 - 1130	53	58	111
1130 - 1145	49	52	101
1145 - 1200	65	67	132
1200 - 1215	57	52	109
1215 - 1230	44	60	104
1230 - 1245	49	58	107
1245 - 1300	45	46	91
1300 - 1315	54	46	100
1315 - 1330	42	45	87
1330 - 1345	47	38	85
1345 - 1400	39	43	82
1400 - 1415	49	38	87
1415 - 1430	61	51	112
1430 - 1445	40	51	91
1445 - 1500	31	37	68
Per End	992	948	1940

<u>COMBINED</u>	<u>Both Access</u>		
	<u>IN</u>	<u>OUT</u>	
<u>Peak Per</u>	<u>IN</u>	<u>OUT</u>	<u>TOT</u>
1000 - 1100	202	154	356
1015 - 1115	221	166	387
1030 - 1130	237	187	424
1045 - 1145	237	210	447
1100 - 1200	232	229	461
1115 - 1215	224	229	453
1130 - 1230	215	231	446
1145 - 1245	215	237	452
1200 - 1300	195	216	411
1215 - 1315	192	210	402
1230 - 1330	190	195	385
1245 - 1345	188	175	363
1300 - 1400	182	172	354
1315 - 1415	177	164	341
1330 - 1430	196	170	366
1345 - 1445	189	183	372
1400 - 1500	181	177	358

PEAK HR	232	229	461
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