

Proposed Mixed Use Development

**141 New Canterbury Road,
Petersham**

TRAFFIC AND PARKING ASSESSMENT REPORT

12 August 2014

Ref 14321

VARGA TRAFFIC PLANNING Pty Ltd

Transport, Traffic and Parking Consultants



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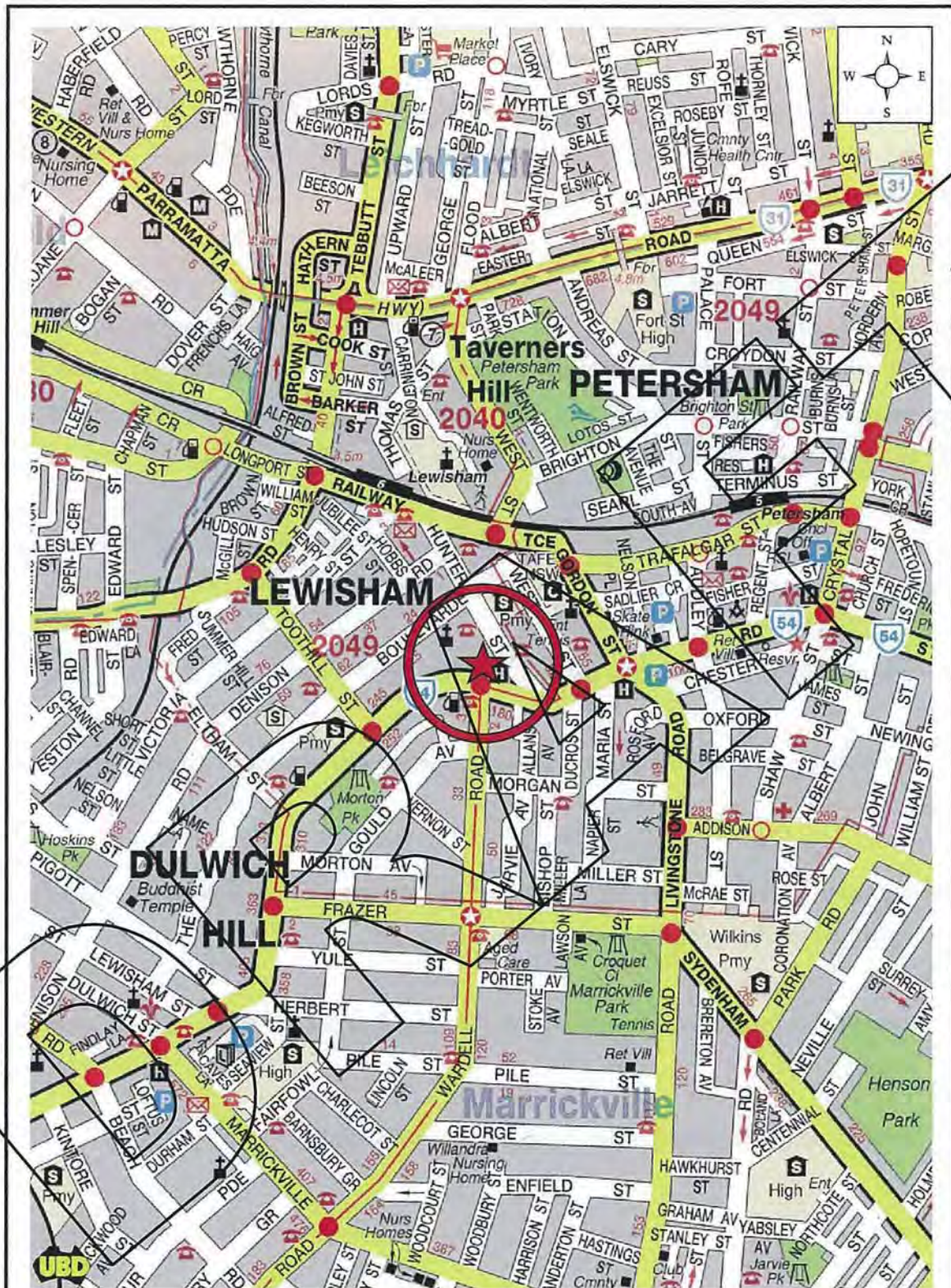
1. INTRODUCTION

This report has been prepared to accompany a Planning Proposal to Marrickville Council for a mixed use development proposal to be located at 141-161 New Canterbury Road in Petersham (Figures 1 and 2).

The proposed development will involve the demolition of the existing buildings on site to facilitate the construction of a new mixed-use residential/commercial development. Car parking will be provided in a basement car parking area in accordance with Council's requirements, with vehicular access to the site to be provided via a two-way Right-Of-Way (ROW) and driveway off Hunter Street.

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

- describes the site and provides details of the Planning Proposal
- 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 development proposal, and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the Planning Proposal in terms of road network capacity
- assesses the parking implications of the Planning Proposal.



VARGA TRAFFIC PLANNING Pty Ltd
Traffic and Parking Consultants

LOCATION
FIGURE 1



2. PROPOSED DEVELOPMENT

Site

The subject site is located at 141-161 New Canterbury Road in Petersham. The site has a street frontage of approximately 60m to new Canterbury Road and occupies an area of approximately 2,400m².

The subject site is currently occupied by two warehouse buildings comprising a mix of 1 and 2-storey buildings. Vehicular access to the site is provided via a shared driveway located at the rear of the site, off Hunter Street, and via a two-way driveway off New Canterbury Road.

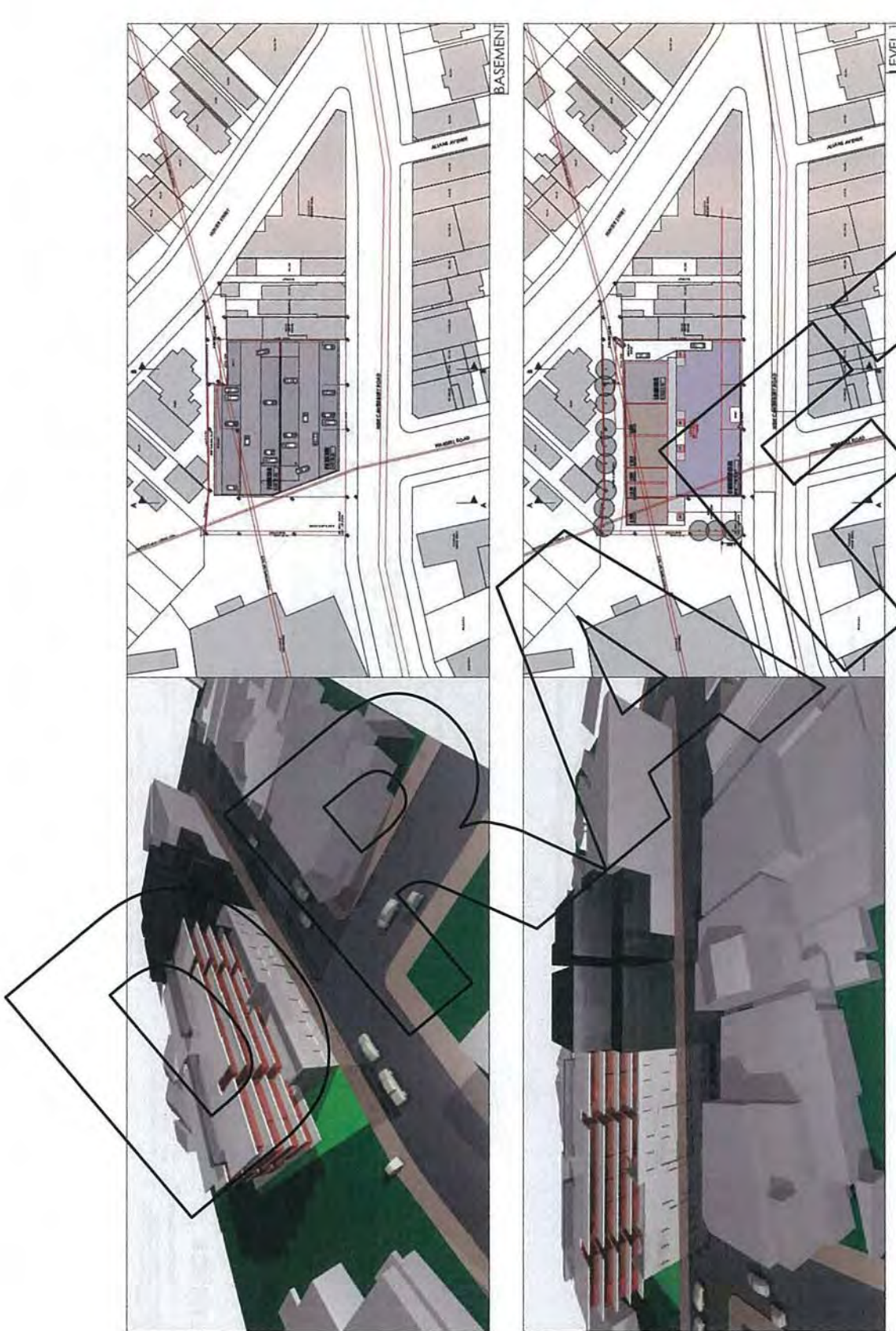
Proposed Development

The proposed development will involve the demolition of the existing buildings on the site to facilitate the construction of a new multi-storey mixed use building. The development is anticipated to yield up to 63 apartments on the upper levels with 784m² of commercial (business) use proposed on the ground level.

Off-street car parking will be provided in a basement car parking area in accordance with Council's requirements. Vehicular access to the car parking facilities is to be provided via the shared entry/exit driveway to Hunter Street.

There will be no vehicular access provided to the site off New Canterbury Road.

Loading/servicing facilities for the proposed development is to be located at the upper levels of the site and will be assessed accordingly during the development application stage.



141-161NCR

0 1 2 3M
This drawing is based on the information provided to us and is not a guarantee of any kind. It is not to be used for any other purpose without the written consent of the architect.
DO NOT SCALE DRAWING

REV DATE ISSUE
A JUNE 14 PLANNING PROPOSAL

CLIENT
CUSTOM CARPETS
330 Parramatta Road
Hornsby West NSW 2142

PROJECT DETAILS
141-161NCR
141-161 New Conventory Road
Parramatta NSW 2049



PROJECT NORTH

SCALE
1:1000 @ A3

PROJECT NO.
1422A

DRAWING
OPTION 1 CONCEPT
TOF2

DRAWING NO.
A-0104

ISSUE

ARCHITECT
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CONCEPT DESIGN



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.

New Canterbury Road/Stanmore Road are classified by the RMS as a *State Road* and provide the key road link in the area, linking Hurlstone Park and Newtown. They typically carry two traffic lanes in each direction in the vicinity of the site.

Parramatta Road is classified by the RMS as a *State Road* and also provides the key east-west road link in the area, linking Parramatta and the Sydney CBD. It typically carries three traffic lanes in each in the vicinity of the site with opposing traffic flows separated by a central concrete median island.

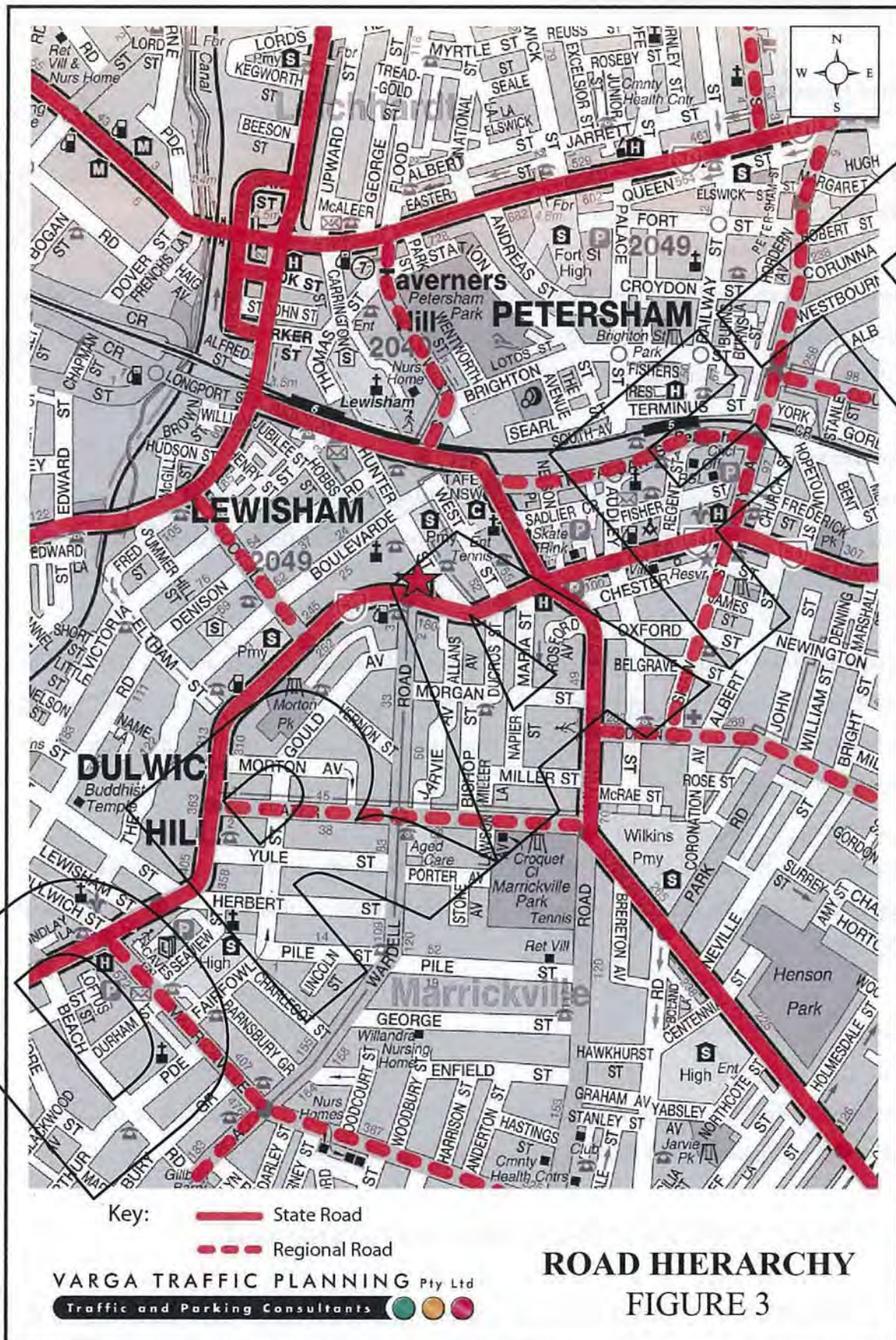
Sydenham Road, Livingstone Road, Gordon Street and Railway Terrace are also classified by the RMS as *State Roads* which provide a key north-south road link in the area, linking Sydenham to Lewisham. They typically carry two traffic lanes in each direction in the vicinity of the site.

Hunter Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

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 60 km/h SPEED LIMIT which applies to New Canterbury Road
- a 50 km/h SPEED LIMIT which applies to Hunter Street and all other local roads in the area





TRAFFIC SIGNALS in New Canterbury Road where it intersects with Wardell Road, West Street and also Gordon Street

- ROAD HUMPS along Hunter Street and West Street
- TURN BAYS at key locations along New Canterbury Road turning into side streets and vice versa.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by reference to the RMS's most recently available *Annual Average Daily Traffic* data. The relevant count stations nearest to the subject site are summarised below, revealing that the annual average daily traffic along this section of the New Canterbury Road and Railway Terrace is in the order of 23,000 and 38,000 vehicles per day respectively.

Roads & Maritime Services of NSW Annual Average Daily Traffic Volumes					
Station No.	Location	1996	1999	2002	2005
19.017	New Canterbury Road (east of Wardell Road)	30,256	29,334	23,970	22,993
00.283	New Canterbury Road & Living Stone Road (TCS)	43,679	43,546	39,613	40,538
19.018	Railway Terrace (east of West Street)	33,657	34,589	-	38,026

A more detailed 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 Hunter Street where it intersects with New Canterbury Road. The results of the traffic surveys are reproduced in full in Appendix A and reveal that:

- two-way traffic flows in New Canterbury Road are typically in the order of 1,600 vph during the AM peak period and 2,400 vph during the PM peak period
- two-way traffic flows in Hunter Street are typically less than 80 vehicles per hour (vph) during peak periods.

Projected Traffic Generation

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

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

Commercial Premises

2.0 peak hour vehicle trips per 100m² GFA

High Density Residential Flat Buildings in Sub-Regional Centres

0.29 peak hour vehicle trips/dwelling

The RMS *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 traffic generation rates to the proposed mixed use development proposal comprising up to 63 apartments and 784m² gross floor area of commercial (business) space yields a traffic generation potential of up to 34 vehicle trips per hour during commuter peak periods as set out below:

Projected Future Traffic Generation

Residential apartments (63 apartments):	18.3 peak hour vehicle trips
Commercial Premises (784m ²):	15.7 peak hour vehicle trips
TOTAL TRAFFIC GENERATION POTENTIAL:	34.0 peak hour vehicle trips

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 of the site to occur as a consequence of the development proposal.

Application of the “warehouse” traffic generation rate of 0.5 trips per 100m² gross floor area nominated in the RMS *Guidelines* to the existing warehouse (assuming 2,000m² of gross floor area) yields a traffic generation potential of approximately 10 peak hour vehicle trips.

Accordingly, it is likely that the proposed development will result in an *increase* in the traffic generation potential of 24 vph as set out below:

Projected Nett Increase in Peak Hour Traffic Generation Potential Of the Site as a Consequence of the Development Proposal	
Projected Future Traffic Generation Potential:	34.0 vehicle trips
Less Existing Traffic Generation Potential:	-10.0 vehicle trips
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	24.0 vehicle trips

Notwithstanding, it is noted that the site is *underutilised* at present and, for the purposes of this assessment, it has been assumed that *all* of the projected future traffic flows of 34 peak hour vehicle trips will be new or *additional* to the existing traffic flows currently using the adjacent road network.

That projected increase in traffic activity as a consequence of the development proposal is minimal and will clearly not have any unacceptable traffic implications in terms of road network capacity, as is demonstrated by the following section of this report.

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 RMS and many LGA's for this purpose. Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages.

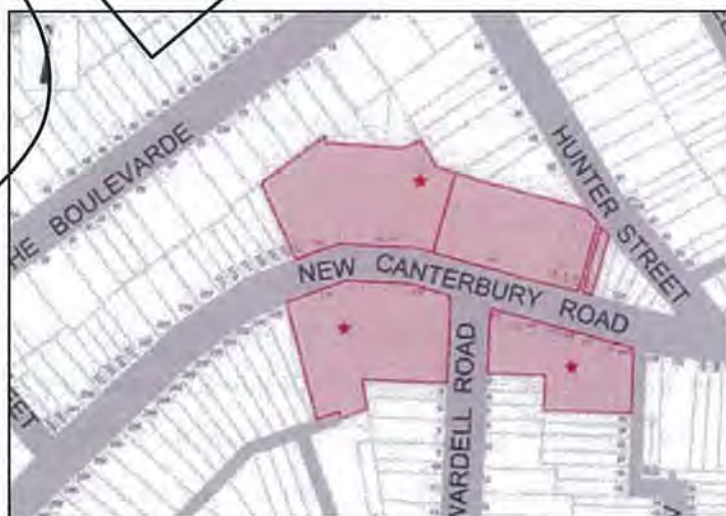
The results of the SIDRA analysis of the New Canterbury Road/Hunter Street intersection are summarised in Table 3.1 below, revealing that:

- the New Canterbury Road/Hunter Street intersection currently operates in the AM and PM peak hour at *Level of Service "A" and "C"* respectively under the existing traffic demands with total average vehicle delays in the order of *less than 1 second/vehicle*
- under the projected future traffic demands expected to be generated by the development proposal, the Porter Street/Junction Street intersection will continue to operate satisfactorily, with increases in average vehicle delays of *less than 1 second/vehicle*.

In the circumstances, it is clear that the proposed development will not have any unacceptable traffic implications in terms of road network capacity, and that no road improvements or intersection upgrades will be required as a consequence of the Planning Proposal.

Other Planning Proposals

Following discussions with Council, a further analysis was undertaken to assess the potential traffic implications of increased traffic flows which may occur if *similar* Planning Proposals were approved on a number of neighbouring sites fronting this section of New Canterbury Road as illustrated on Figure 5 and as set out in the table below:



OTHER DEVELOPMENT SITES
FIGURE 5

Officeworks and Tile Warehouse (located to the west of the subject site)

Site Area	-	4320m ²
Residential	-	120 dwellings
Business	-	1300m ²

Sites located immediately to the east of the subject site (not including Huntsbury Hotel)

Site Area	-	780m ²
Residential	-	22 dwellings
Business	-	230m ²

Petrol station, car repairs and site further to the west

Site Area	-	4020m ²
Residential	-	114 dwellings
Business	-	1200m ²

Sites opposite the subject site

Site Area	-	2430m ²
Residential	-	70 dwellings
Business	-	730m ²

In summary, redevelopment of the neighbouring sites in the precinct could accommodate approximately 326 apartments and 3460m² of non-residential floor space.

The neighbouring sites therefore have a cumulative traffic generation potential of 164 vph in addition to the 34 vph which is expected to be generated by the subject Planning Proposal.

It is noted that, with the exception of the small site located immediately to the east of the subject site (which has a frontage to Hunter Street), all the other sites have street frontages to New Canterbury Road or Wardell Road only.

An assessment of the cumulative traffic generation potential of all sites has been undertaken using the SIDRA capacity analysis and the results of that analysis is also summarised on Table 3.1, revealing that the New Canterbury Road/Hunter Street intersection will continue to operate satisfactorily, with a total increase in average vehicle delays of *less than 1* second per vehicle.

Accordingly, the analysis confirms that if *similar* Planning Proposals were implemented on the neighbouring sites fronting New Canterbury Road the cumulative traffic implications of all potential developments would not have any unacceptable traffic implications in terms of road network capacity, and that no road improvements or intersection upgrades would be required as a consequence of the cumulative redevelopment of the subject site plus all the other neighbouring sites.

**TABLE 3.1 - RESULTS OF SIDRA ANALYSIS OF
NEW CANTERBURY ROAD & HUNTER STREET**

Key Indicators	Existing Traffic Demand		Projected Development Traffic Demand		All Development Sites	
	AM	PM	AM	PM	AM	PM
Level of Service	A	C	A	C	A	C
Degree of Saturation	0.304	0.416	0.306	0.418	0.315	0.426
Average Vehicle Delay (secs/veh)						
New Canterbury Road (east) T	0.0	0.0	0.0	0.0	0.0	0.0
Hunter Street (north)	L	10.4	10.1	35.1	10.2	40.9
	R	10.3	10.1	35.0	10.2	40.9
New Canterbury Road (west)	L	5.6	5.6	5.6	5.6	5.6
	T	0.0	0.0	0.1	0.0	0.0
TOTAL AVERAGE VEHICLE DELAY	0.4	0.6	0.5	0.7	0.5	0.8

NEW_DUNX

NEW_HUNP

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 illustrated on Figure 6 and comprise:

- CLEARWAY restrictions along New Canterbury Road during commuter peaks
- 2 HOUR parking on the eastern side of Wardell Road
- BUS ZONES at regular intervals along both sides of New Canterbury Road
- generally UNRESTRICTED kerbside parking throughout the local area.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan Part 2 – Generic Provisions 2.10 Parking* document in the following terms:

Residential Flat Buildings and Shoptop Housing (7 or more units)

Non-Adaptable

studio	0.4 spaces per unit
1 bedroom	0.5 spaces per unit
2 bedroom	1.0 spaces per unit
3+ bedroom	1.2 spaces per unit
visitors	0.1 space per unit

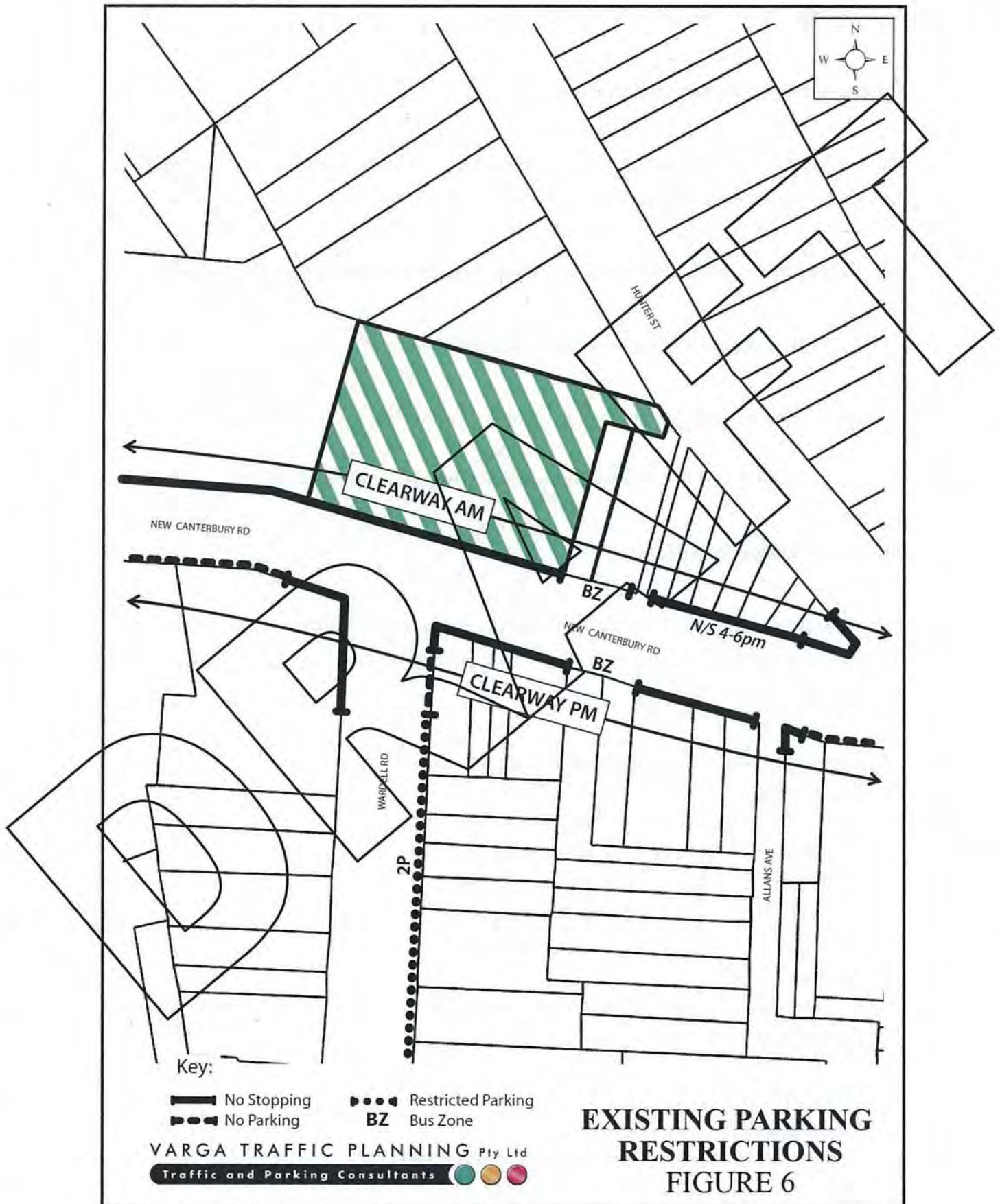
Adaptable

1 mobility space per studio, 1br, 2br or 3+br unit for residents plus 0.25 visitor mobility spaces per resident mobility space.

Business Premises

750 - 1,000m²

12 plus 1 per 35m² GFA over 750m² GFA for customers & staff



Application of the above parking requirements to the assumed 63 apartments (all of which are assumed to comprise 2 bedrooms) and 784m² GFA of business uses yields an off-street parking requirement of up to 83 parking spaces as set out below:

Residents:	63.0 spaces
Visitors:	6.3 spaces
Commercial/Retail:	13.0 spaces
TOTAL:	82.3 spaces

The above parking requirements will ultimately be satisfied during the development application stage, subject to confirmation of the actual number of apartments and number of bedrooms. In addition, the requirements of mobility spaces will be assessed at the development application stage dependent upon the actual demand and number of adaptable units to satisfy Council's requirements.

Further to the above, Council requires the provision of 1 bicycle space per 2 units for residents and 1 bicycle space per 10 units for visitors. Council also requires a motorcycle parking provision equivalent to 5% of the car parking requirement. Application of these rates to the proposed development yields a requirement of 32 bicycle spaces for residents, 7 bicycle spaces for visitors and 3 motorcycle spaces which will ultimately be satisfied during the development application stage.

Loading/Service Provisions

The loading and servicing facilities for the proposed new mixed-use building will be located at the upper ground level and will be assessed during the development application stage to allow the design vehicle to enter and exit the site in a forward direction. The loading dock and manoeuvring areas will ultimately comply with Council's and Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities - AS2890.2* requirements.

The proposed parking and loading facilities will ultimately 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 be expected to have any unacceptable parking or loading implications.

APPENDIX A

TRAFFIC SURVEY DATA

DRAFT



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph 88198847, Fax 88198849, Mob.0418-239019

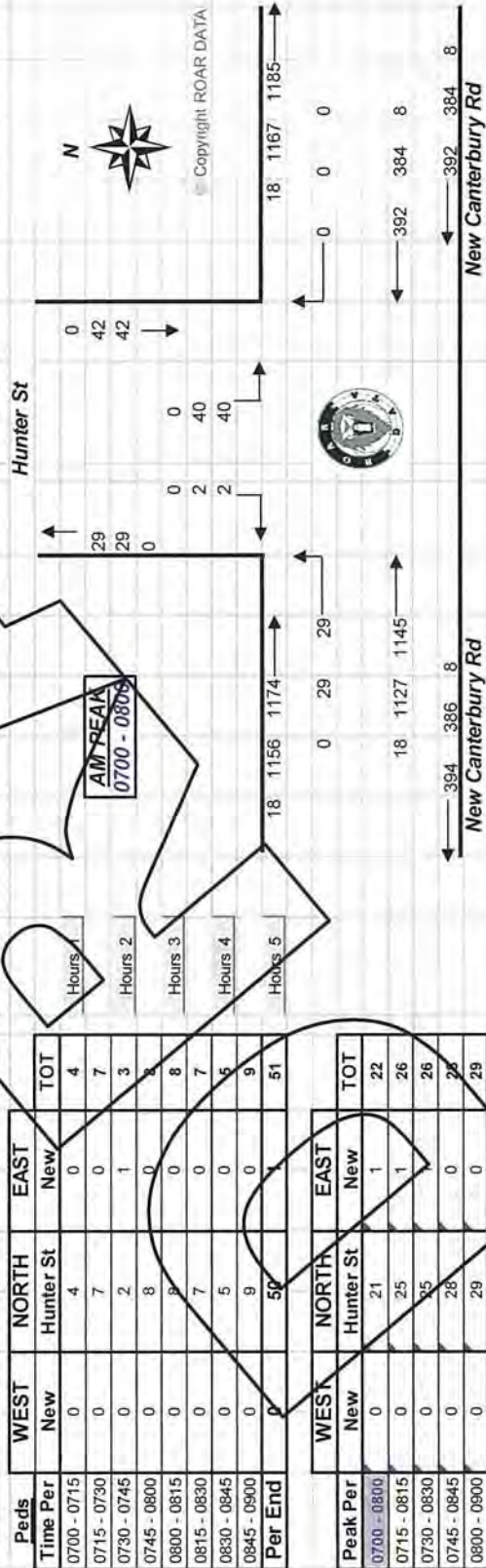
Client : Varga Traffic Planning

Job No/Name : 5191 PETERSHAM Hunter St

Day/Date : Tuesday 3rd June 2014

Lights	WEST						NORTH						EAST						Heavies						WEST						NORTH						EAST						Combined						WEST						NORTH						EAST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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0730 - 0830	1038	37	2	50	0	419	1546			0730 - 0830	29	0	0	0	0	12	41			0730 - 0830	1067	37	2	50	0	431	1587			
0745 - 0845	958	40	2	64	0	390	1454			0745 - 0845	26	0	0	0	0	11	37			0745 - 0845	984	40	2	64	0	401	1491			
0800 - 0900	966	47	2	64	0	392	1471			0800 - 0900	26	0	0	0	0	14	40			0800 - 0900	992	47	2	64	0	406	1511			
PEAK HR	1127	29	2	40	0	384	1582			PEAK HR	18	0	0	0	0	8	26			PEAK HR	1145	29	2	40	0	392	1608			





R.O.A.R DATA

Reliable, Original & Authentic Results

Ph. 88196847, Fax 88196849, Mob. 0418-239019

Client : Varga Traffic Planning

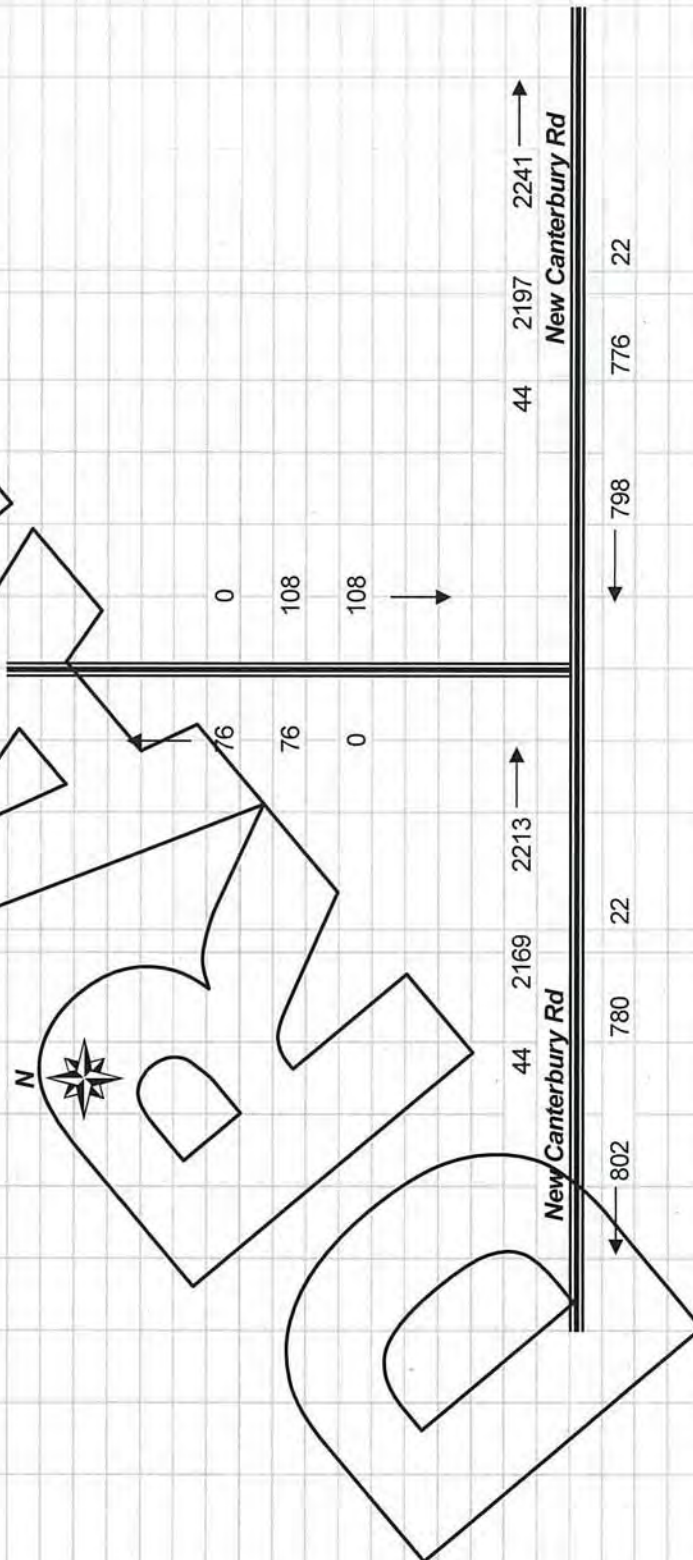
Job No/Name : 5191 PETERSHAM Hunter St

Day/Date : Tuesday 3rd June 2014

TOTAL VOLUMES
FOR COUNT
PERIOD

AM

Hunter St





R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

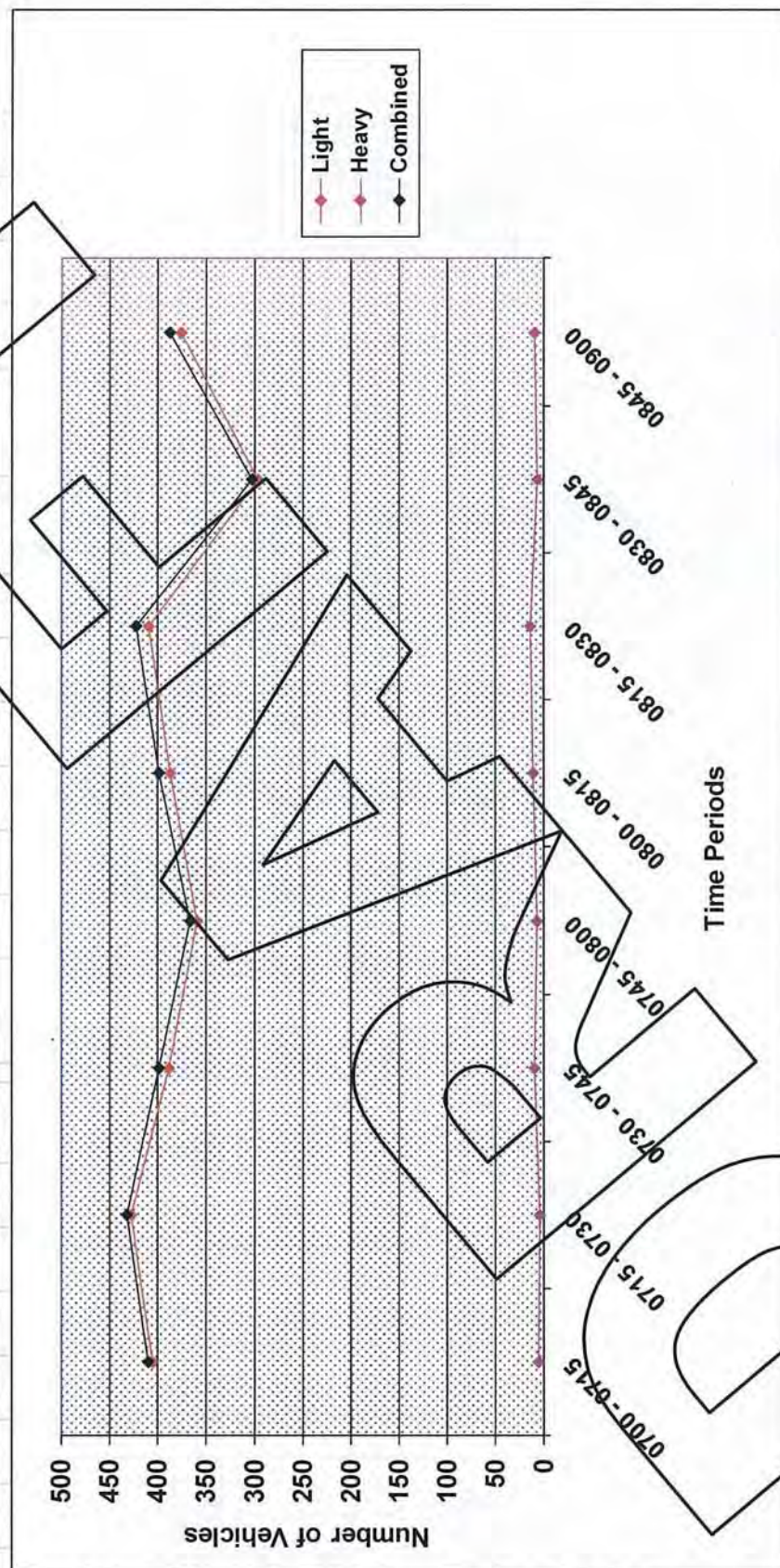
Client : Varga Traffic Planning

Job No/Name : 5191 PETER SHAM Hunter St

Day/Date : Tuesday 3rd June 2014

AM

Hunter St & New Canterbury Rd





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Fax 88196849, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 5191 PETERSHAM Hunter St

Day/Date : Tuesday 3rd June 2014

Lights	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1645	118	8	0	6	0	220	352
1645 - 1700	139	7	1	8	0	217	372
1700 - 1715	154	7	3	5	0	237	406
1715 - 1730	142	2	4	9	0	313	470
1730 - 1745	139	6	2	6	0	281	434
1745 - 1800	169	6	2	8	0	264	449
1800 - 1815	140	7	0	5	0	232	384
1815 - 1830	143	9	3	10	0	223	388
Per End	1144	52	15	57	0	1987	3255

Lights	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	553	24	8	28	0	987	1600
1645 - 1745	574	22	10	28	0	1048	1682
1700 - 1800	604	21	11	28	0	1095	1759
1715 - 1815	590	21	8	28	0	1090	1737
1730 - 1830	591	28	7	29	0	1000	1655
PEAK HR	604	21	11	28	0	1095	1759

Peds	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1645	0	0	9	0	0	0	9
1645 - 1700	0	0	7	0	0	0	7
1700 - 1715	0	0	1	0	0	0	1
1715 - 1730	0	0	3	0	0	0	3
1730 - 1745	0	0	2	0	0	0	2
1745 - 1800	0	0	10	0	0	0	10
1800 - 1815	0	0	6	0	0	0	6
1815 - 1830	0	0	6	0	0	0	6
Per End	0	0	44	0	0	0	44

Peds	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	0	0	20	0	0	0	20
1645 - 1745	0	0	13	0	0	0	13
1700 - 1800	0	0	16	0	0	0	16
1715 - 1815	0	0	21	0	0	0	21
1730 - 1830	0	0	24	0	0	0	24
PEAK HR	0	0	16	0	0	0	16

Heavies	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1645	118	0	0	0	0	4	122
1645 - 1700	139	0	0	0	0	4	140
1700 - 1715	154	0	0	0	0	6	160
1715 - 1730	142	0	0	0	0	4	146
1730 - 1745	139	0	0	0	0	3	142
1745 - 1800	169	0	0	0	0	5	174
1800 - 1815	140	0	0	0	0	1	141
1815 - 1830	143	0	0	0	0	6	149
Per End	1144	0	0	0	0	30	1174

Heavies	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	553	0	0	0	0	15	568
1645 - 1745	574	0	0	0	0	14	588
1700 - 1800	604	0	0	0	0	18	622
1715 - 1815	590	0	0	0	0	13	603
1730 - 1830	591	0	0	0	0	15	606
PEAK HR	604	0	0	0	0	18	622

Peds	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	553	0	0	0	0	15	568
1645 - 1745	574	0	0	0	0	14	588
1700 - 1800	604	0	0	0	0	18	622
1715 - 1815	590	0	0	0	0	13	603
1730 - 1830	591	0	0	0	0	15	606
PEAK HR	604	0	0	0	0	18	622

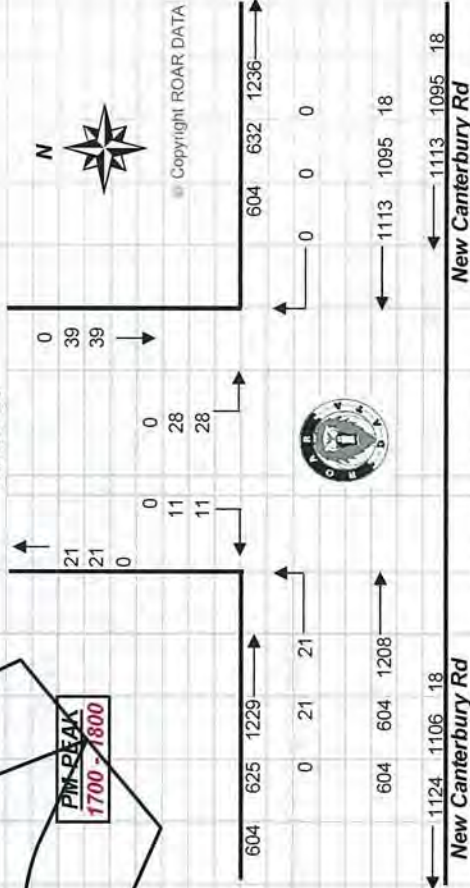
Peds	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	553	0	0	0	0	15	568
1645 - 1745	574	0	0	0	0	14	588
1700 - 1800	604	0	0	0	0	18	622
1715 - 1815	590	0	0	0	0	13	603
1730 - 1830	591	0	0	0	0	15	606
PEAK HR	604	0	0	0	0	18	622

Combined	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1645	236	8	0	6	0	224	474
1645 - 1700	278	7	1	8	0	218	512
1700 - 1715	308	7	3	5	0	243	566
1715 - 1730	284	2	4	9	0	317	616
1730 - 1745	278	6	2	6	0	284	576
1745 - 1800	338	6	2	8	0	269	623
1800 - 1815	280	7	0	5	0	233	525
1815 - 1830	286	9	3	10	0	229	537
Per End	2288	52	15	57	0	2017	4429

Combined	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	1106	24	8	28	0	1002	2168
1645 - 1745	1148	22	10	28	0	1062	2270
1700 - 1800	1208	21	11	28	0	1113	2381
1715 - 1815	1180	21	8	28	0	1103	2340
1730 - 1830	1182	28	7	29	0	1015	2261
PEAK HR	1208	21	11	28	0	1113	2381

Combined	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	1106	24	8	28	0	1002	2168
1645 - 1745	1148	22	10	28	0	1062	2270
1700 - 1800	1208	21	11	28	0	1113	2381
1715 - 1815	1180	21	8	28	0	1103	2340
1730 - 1830	1182	28	7	29	0	1015	2261
PEAK HR	1208	21	11	28	0	1113	2381

Combined	WEST		NORTH		EAST		TOT
	New	Hunter St	New	Hunter St	New	Hunter St	
Time Per	I	L	R	L	R	L	I
1630 - 1730	1106	24	8	28	0	1002	2168
1645 - 1745	1148	22	10	28	0	1062	2270
1700 - 1800	1208	21	11	28	0	1113	2381
1715 - 1815	1180	21	8	28	0	1103	2340
1730 - 1830	1182	28	7	29	0	1015	2261
PEAK HR	1208	21	11	28	0	1113	2381





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph. 88196847, Fax 88196849, Mob. 0418-239019

Client : Varga Traffic Planning

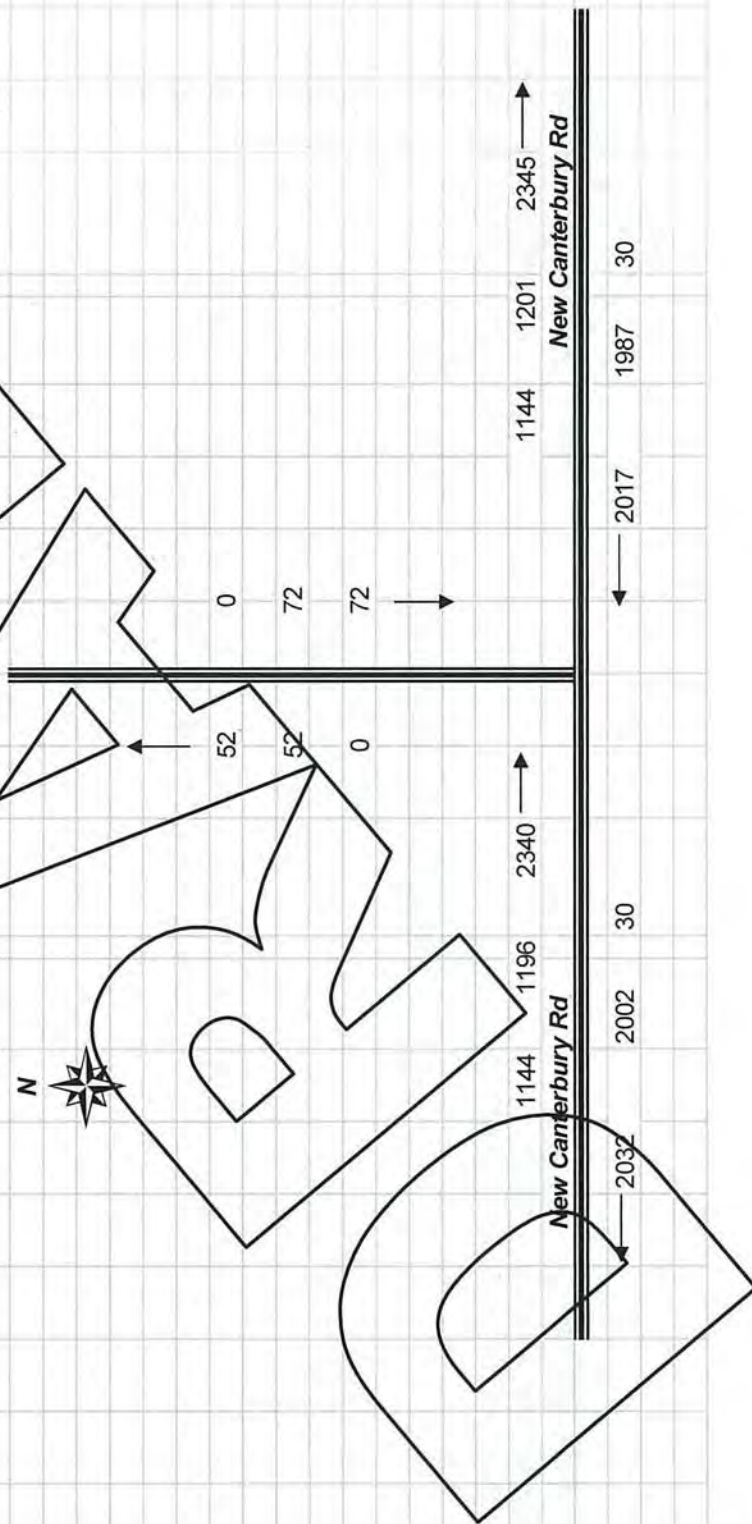
Job No/Name : 5191 PETERSHAM Hunter St

Day/Date : Tuesday 3rd June 2014

TOTAL VOLUMES
FOR COUNT
PERIOD

PM

Hunter St





R.O.A.R DATA

Reliable, Original & Authentic Results

Ph. 88196847, Fax 88196849, Mob. 0418-239019

Client

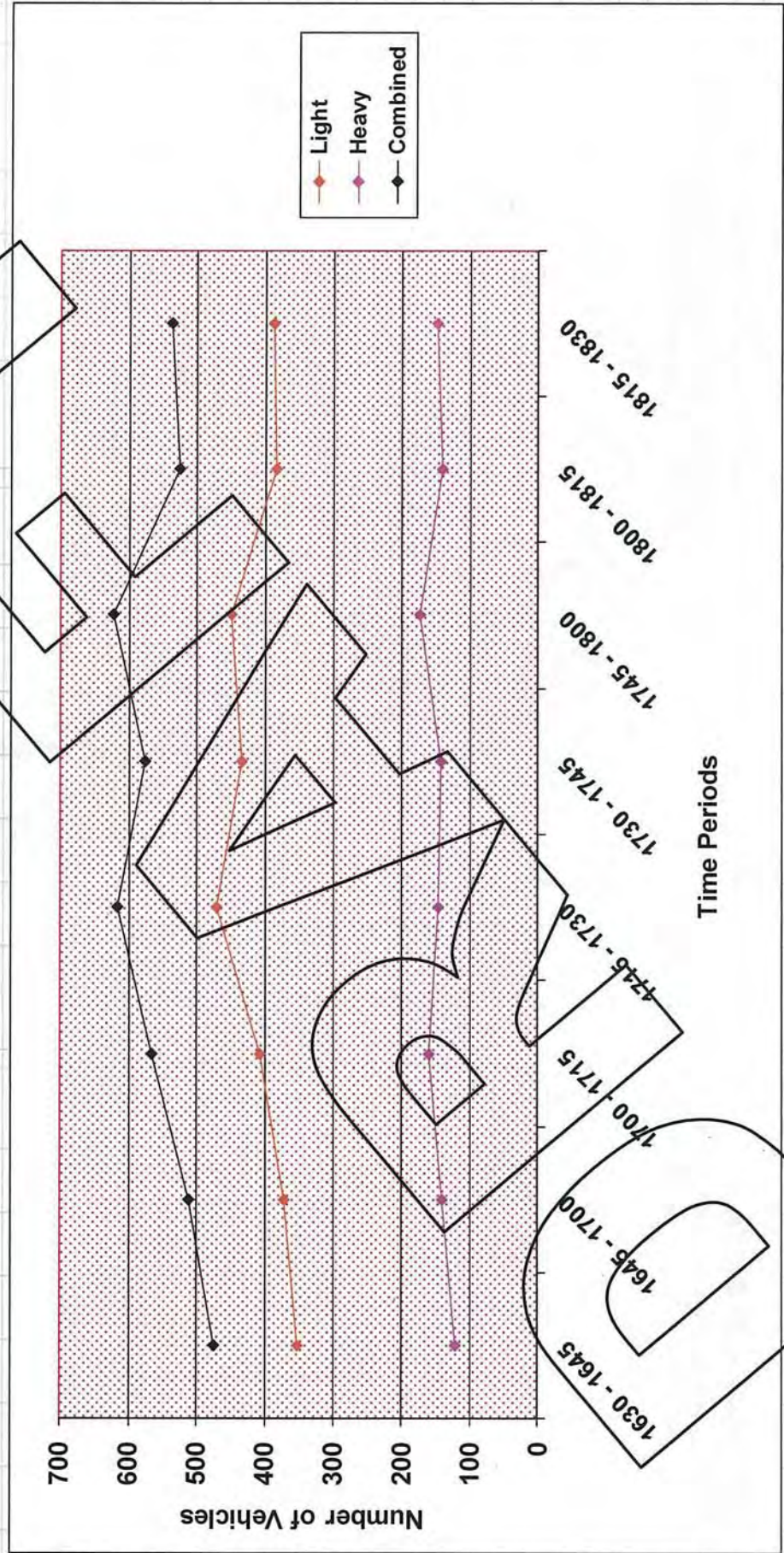
Varga Traffic Planning

Job No/Name : 5191 PETERSHAM Hunter St

Day/Date : Tuesday 3rd June 2014

PM

Hunter St & New Canterbury Rd





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph. 88196847, Fax 88196849, Mob. 0418-239019

Client

Varga Traffic Planning

Job No/Name 5191 PETERSHAM Hunter St

Day/Date Tuesday 3rd June 2014



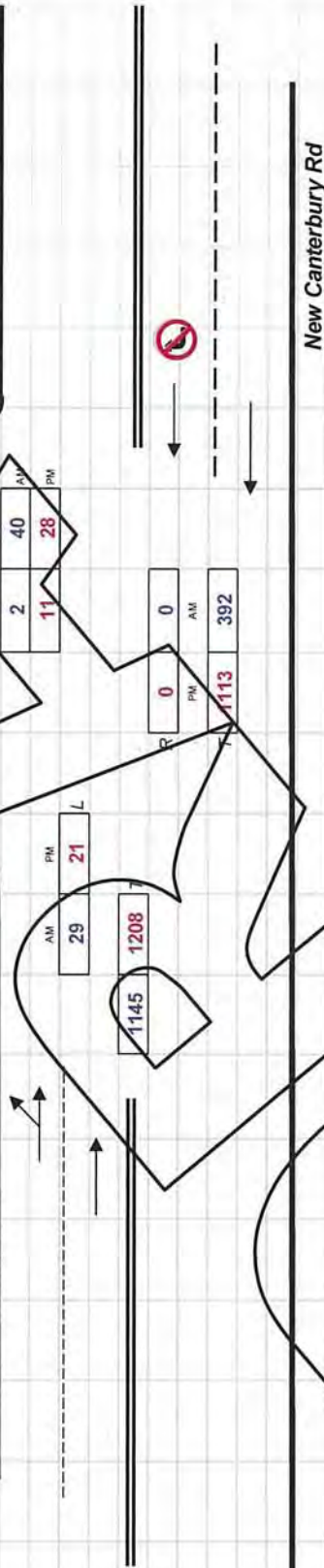
Intersection Details

Obtained via satellite

May be incorrect

AM PEAK HOUR
0700 - 0800

New Canterbury Rd



	R	L	A	P
AM	2	40		
PM	11	28		

	R	L	A	P
AM	0	0		
PM	113	392		

	AM	PM
	29	21

1145 1208

PM PEAK HOUR
1700 - 1800

Combined Figures only

Weather >>>

