"CHANNEL 7 SITE"
PROPOSED
RESIDENTIAL DEVELOPMENT
61 MOBBS LANE, EPPING

Assessment of Traffic and Transport Implications

July 2010

Reference 10138

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1. INTRODUCTION

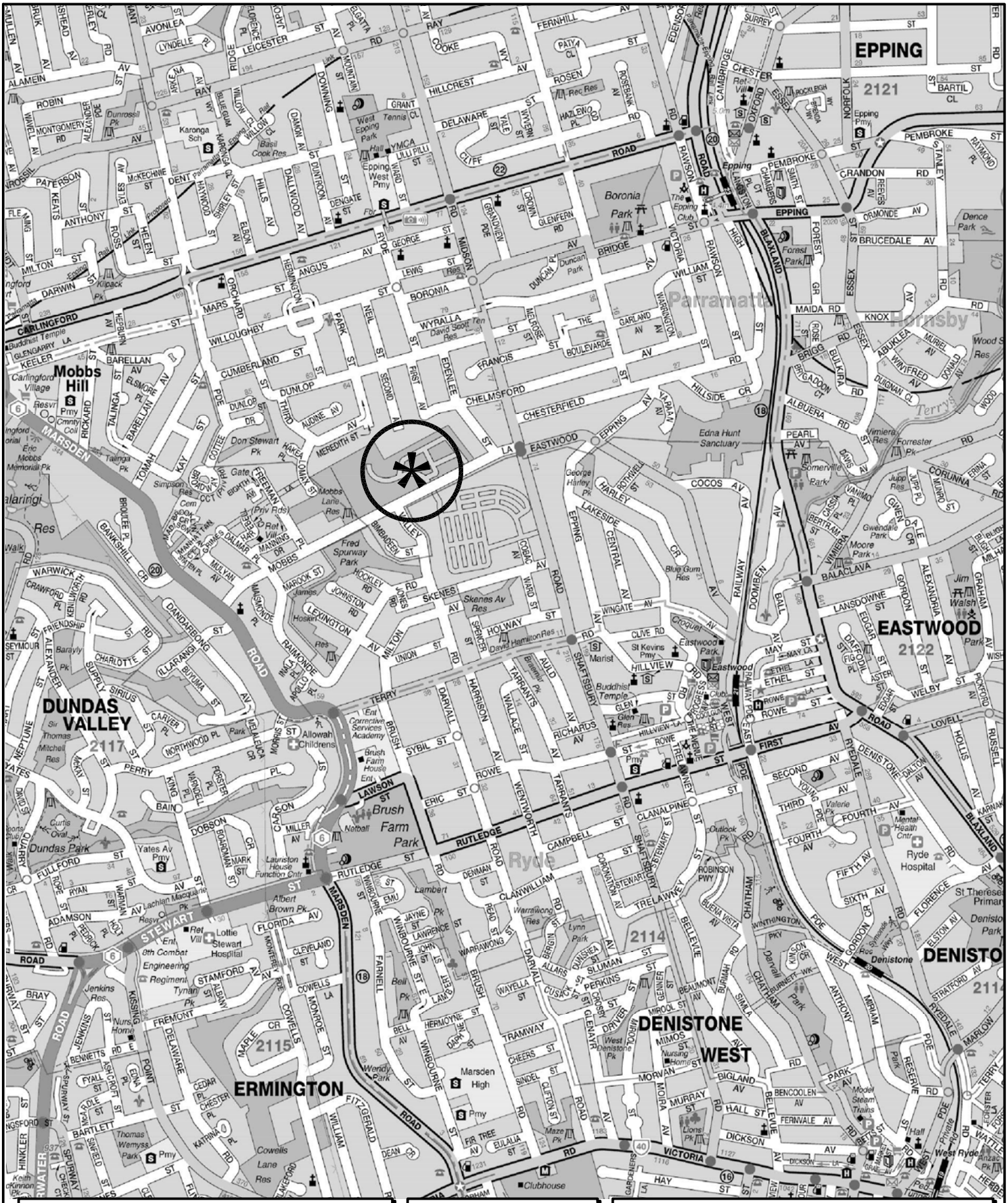
This report has been prepared for Meriton Apartments to accompany a Section 75W Planning Report Submission to the Department of Planning seeking to amend conditions of consent for residential development on the Channel 7 site in Mobbs Lane at Epping (Figure 1).

Approval of Concept Plan MP05_0086 provided for the construction of up to 650 dwellings together with a Child Care Centre and a new access road system. Some 45% of the dwelling were envisaged to be three-bedroom+ within the total allowable GFA of 80,000m^2.

The site has convenient access to public transport services and in accordance with contemporary Metropolitan Planning Policies it is desirable for a higher development yield is achieved. The proposed amendment would permit a maximum of 800 dwellings (only some 5.8% being three-bedroom+) within the maximum floorarea of 80,000m^2. The proposal would retain the Child Care Centre whilst also incorporating a small neighbourhood convenience shop.

The purpose of this report is to:

* describe the site, the approved Concept Plan and the proposed amendment
* describe the road network serving the site and the prevailing traffic conditions
* assess the potential traffic generation of development under the amendment as compared to that of the approved scheme
* assess the potential traffic implications
* assess the potential transport implications
* identify any potential traffic related environmental implications.



LEGEND

LOCATION

FIG 1

2. PROPOSED DEVELOPMENT SCHEME

2.1 SITE AND CONTEXT

The development site (Figure 2), which occupies an area of some 89,190m², is situated some 1.4 kms to the west of both Epping and Eastwood Railway Stations with a frontage to Mobbs Lane midway between Marsden Road and Midson Road.

The site has been occupied by Channel 7 for some 50 years and is currently utilised as its broadcast facility. Previously there were some 540 permanent employees engaged at the facility, and this increased significantly at times of heightened production activity. The number of staff on the site has reduced significantly in recent years as a result of the cessation of production activity.

The only vehicle access is via Mobbs Lane and the site is generally surrounded by detached dwellings, medium density and small lot housing with the notable exceptions being:

- the Eastwood Brickworks site located opposite the site on the southern side of Mobbs Lane which is currently being redeveloped to comprise 241 dwellings with detached dwellings and townhouses

- the Fred Spurway Reserve located a short walk to the west of the site which has frontages to both Valley Road and Mobbs Lane

- the small neighbourhood shopping centre on Mobbs Lane in the vicinity of Mulyan Avenue to the west of the site

- the Eastwood commercial centre and railway station, both located approximately 800 metres to the south-east.

LEGEND

N

SITE

FIG 2

The site is located within the catchment of the Eastwood Primary and Epping West Primary Schools whilst secondary schooling opportunities are immediately available at the Carlingford, Epping and Marsden High Schools as well as a number of denominational and private high schools.

2.2 APPROVED CONCEPT PLAN

The approved Concept Plan MP05-0086 permitted:

- 650 (maximum) residential dwellings
- a density of 73 dwellings per ha (maximum 80,000m^2 GFA)
- building heights of 2 – 6 levels
- a dwelling mix of:
  - 1 bed – 5%
  - 2 bed – 55%
  - 3 bed – 40%
- a child care centre
- 1,032 parking spaces
- Access road system, parks and open space areas.

The projected traffic generation of the scheme was 3,550 vpd with 360 vtph in the morning and afternoon peak periods. The consent conditions required:

- the widening of Mobbs Lane
- the provision of traffic signals at the Marsden Road/Mobbs Lane intersection
- the modification of traffic signals at the Mobbs Lane/Midson Road intersection.

2.3 PROPOSED DEVELOPMENT

The principal modification sought is to increase the maximum development yield to 800 residential dwellings with the following envisaged mix:

One-bedroom	47 (6%)
Two-bedroom	705 (88%)
Three-bedroom	48 (6%)
Total	**800 dwellings**

The proposed carparking would generally accord with Council's DCP criteria (not within 400 metres of Railway Station) as follows:

47 x one-bedroom	47
705 x two-bedroom	705
48 x three-bedroom	96
Visitor @ 0.25 spaces per unit	200 (85 on-street)
Total	**1,048 spaces**

The proposal would retain the envisaged Child Care Centre and there will be small neighbourhood convenience shop located next to the centre.

Details of the proposed development concept are provided on the architectural plans prepared by Architectus.

3. ROAD NETWORK AND TRAFFIC CONDITIONS

3.1 ROAD NETWORK

The road network serving the site (Figure 3) comprises:

- *Pennant Hills Road* – part of the Cumberland Highway arterial system linking between Hornsby and Liverpool

- *Carlingford Road* – an east/west State Road and arterial route connecting Pennant Hills Road at Carlingford with Beecroft Road at Epping

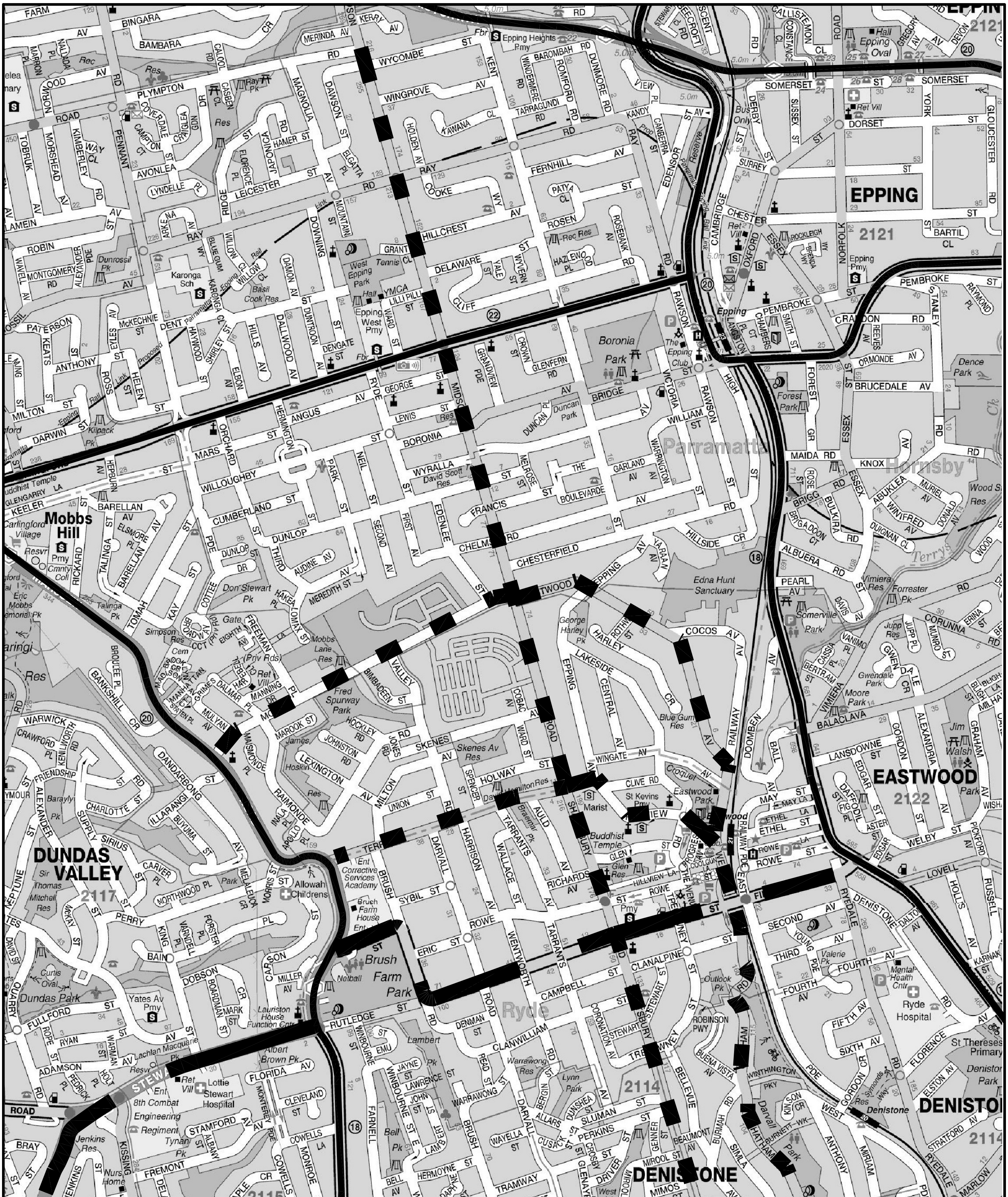
- *Blaxland Road* – a State Road and arterial route linking between Epping and Ryde

- *Rutledge Street/Lawson Street* – a Regional Road and sub-arterial route connecting between Blaxland Road in the east with Marsden Road to the west via Eastwood

- *Midson Road/Shaftsbury Road* – a major north/south collector route which functions between Victoria Road at Denistone West and Beecroft Road at Cheltenham

- *Mobbs Lane/Eastwood Avenue* – a minor east/west collector route connecting Marsden Road with the Eastwood commercial centre

- *Terry Road/Hillview Road* – a minor east/west collector route to the south of the Mobbs Lane corridor which also functions between Marsden Road and the Eastwood commercial centre.



LEGEND

ARTERIAL

SUB-ARTERIAL

COLLECTOR

ROAD NETWORK

FIG 3

Mobbs Lane has a variable carriageway width with kerb and gutter provided between Midson Road and the main entrance to the Channel 7 studios. A narrow 6.6 metre wide carriageway (with no kerb and gutter) is provided between the television studio entrance and Valley Road.

3.2 TRAFFIC CONTROLS

The existing traffic controls which have been applied to the street system in the vicinity of the site (Figure 4) comprise:

* the 50 kmph speed limit on the local access roads and 60 kmph restriction on Midson Road and Marsden Road

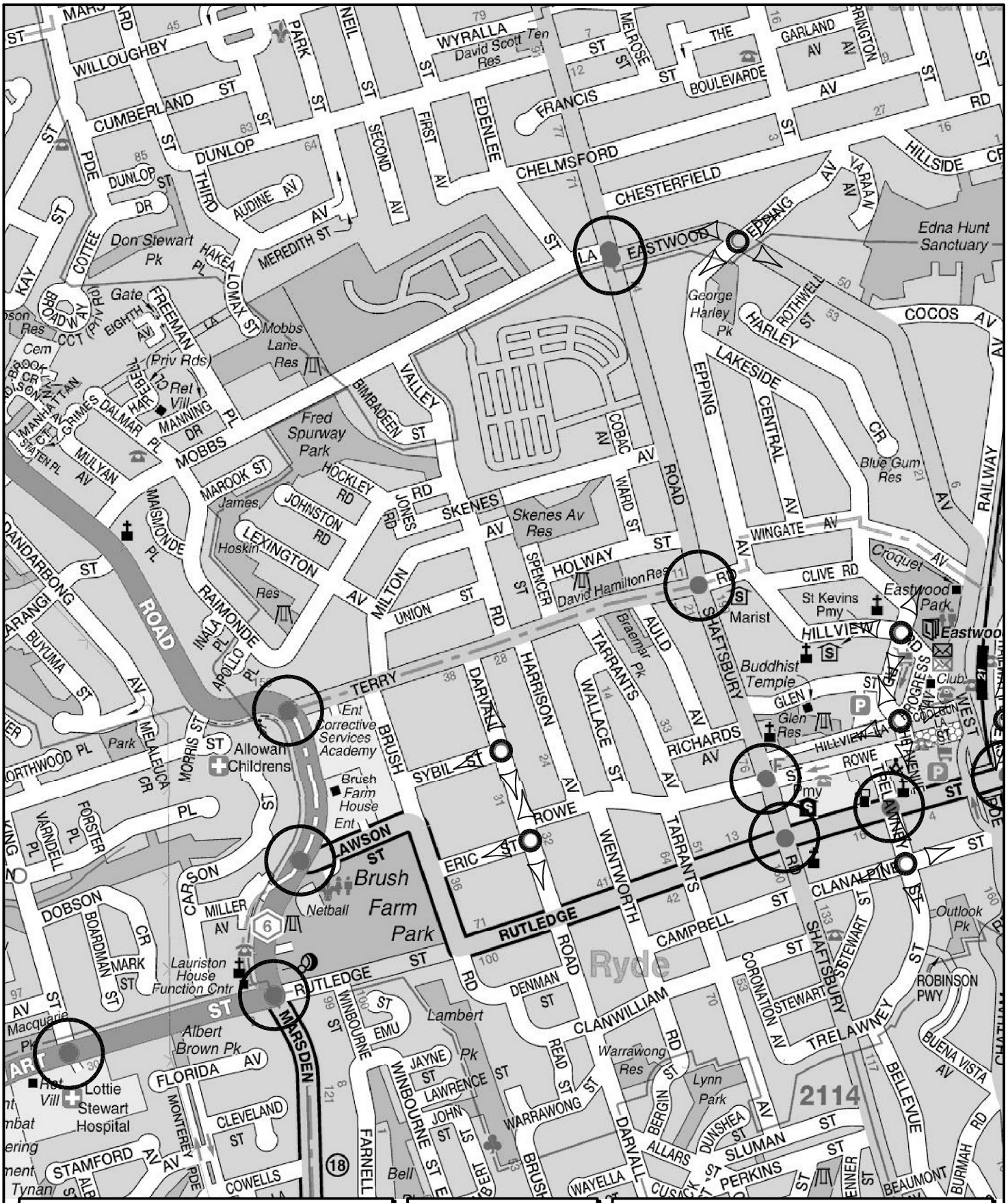
* the 3 tonne load limit restriction on Mobbs Lane

* the traffic control signals at the intersection of Midson Road/Mobbs Lane and Eastwood Avenue with NO RIGHT TURN restrictions from Midson Road to Eastwood Avenue

* the traffic control signals at:
    - Terry Road and Marsden Road
    - Terry Road and Midson Road
    - Midson Road and Carlingford Road

* the roundabout control at:
    - Eastwood Avenue and Epping Avenue
    - Midson Road and Boronia Avenue

* the GIVE WAY control on Mobbs Lane at Marsden Road.



LEGEND

- TRAFFIC SIGNAL CONTROL
- ROUNDABOUT
- RESTRICTED TURNING MOVEMENT

TRAFFIC CONTROLS

FIG 4

3.3 TRAFFIC CONDITIONS

An indication of the traffic conditions on the arterial roads in the vicinity of the site are provided by data published by the RTA[1] and surveys undertaken in June 2010 for this study. The data is expressed in terms of Annual Average Daily Traffic (AADT) and details of the latest data is provided in the following:

Location	**AADT**
Marsden Road north of Stewart Street	46,299
Marsden Road south of Pennant Hills Road	26,469
Carlingford Road east of Midson Road	21,123
Rutledge Street east of Trelawney Street	37,777

The traffic surveys were undertaken in the vicinity of the site at the intersection of Mobbs Lane/Midson Road and Marsden Road/Mobbs Lane during both the morning and afternoon peak periods. Details of the results of these surveys are provided in Appendix A and summarised as follows:.

		AM	**PM**
Midson Road	Northbound	157	464
	Left-turn	7	48
	Southbound through	443	256
	Right-turn	54	74
	Left-turn	113	51
Mobbs Lane	Through	132	45
	Right-turn	60	33
	Left-turn	119	92
Eastwood Avenue	Through	16	49
	Right-turn	43	143
	Left-turn	6	9

[1] *Traffic Volume Data for Sydney Region*
Roads and Traffic Authority of NSW

		AM	PM
Marsden Road	Northbound	698	1315
	Right-turn	179	148
	Southbound	1292	866
	Left-turn	78	74
Mobbs Lane	Right-turn	12	29
	Left-turn	108	96

Comparison with previous traffic surveys reveals a reduction in traffic movements along Mobbs Lane (a factor also recognised in a 2005 assessment for the site). It is apparent that this circumstance is largely due to the reduction in staff working at the Channel 7 site as compared to earlier years.

The operational performance of these intersections has been assessed with SIDRA. The results of that assessment are summarised in the following:

	AM		PM	
	LOS	**AVD**	**LOS**	**AVD**
Marsden/Mobbs (GW)	C	33.4	B	21.4
Midson/Mobbs (TCS)	C	28.3	C	31.8

3.4 TRANSPORT SERVICES

Rail

The site is approximately 1.4 kms from Eastwood from Epping Railway Stations and is therefore within the accepted 1.5 kms walking catchment of both stations. Access to these stations also provides links to the metropolitan rail network which connects to Parramatta CBD and Sydney CBD. The opening of the Epping to Chatswood rail link improved services at these stations providing a link to the Chatswood CBD.

Bus

Mobbs Lane is a Sydney Buses route which links Eastwood and Epping Stations. Sydney Buses operate the following routes in the vicinity of the site:

- *Route 521 Parramatta – Eastwood Station.* These buses travel along Mobbs Lane and Eastwood Avenue. The service operates Monday to Saturday

- *Route 541 Epping Station – Eastwood Station*. These buses travel along Chesterfield Road, Midson Road, Dunlop Street, Edenlee Street, Mobbs Lane and Eastwood Avenue. The service operates Monday to Saturday

- *Route 545 Parramatta Station – Eastwood – Macquarie Centre – Chatswood.* These buses travel along Terry Road and Hillview Road. The service operates Monday to Saturday

- *Route 550 Parramatta – Macquarie Park*. These buses operate along Terry Road and Hillview Road. The service operates seven days per week

There are numerous bus stops for these routes close to the site. On Mobbs Lane, there are bus stops near Edenlee Street, at the entrance to Channel 7, and just west of Valley Road, for Routes 521 and 541. There are bus stops on Eastwood Avenue near its intersection with Midson Road, for Routes 521 and 541.

There are also bus stops in Edenlee Street near Mobbs Lane for Route 541 buses. For Routes 545 and 550, there are bus stops on Hillview Road near Midson Road, and on Terry Road near Shaftsbury Road, Tarrants Avenue, and near Valley Road. These stops are all within reasonable walking distance of the site. The frequency of buses on the various routes are summarised in the following:

BUSES STOPPING IN VICINITY OF THE SITE

	To Parramatta or Epping				From Parramatta or Epping			
	521	**541**	**545**	**550**	**521**	**541**	**545**	**550**
7.00am – 9.00am	0	2	2	4	1	2	2	4
10.00am – 2.00pm	4	4	4	0	4	4	4	0
4.00pm – 6.00pm	2	3	3	3	1	3	3	4
Daily total	9	15	17	11	10	15	18	12

Note: Route 541 to/from Epping, all other routes to/from Parramatta

3.5 PEDESTRIANS AND CYCLISTS

Pedestrians

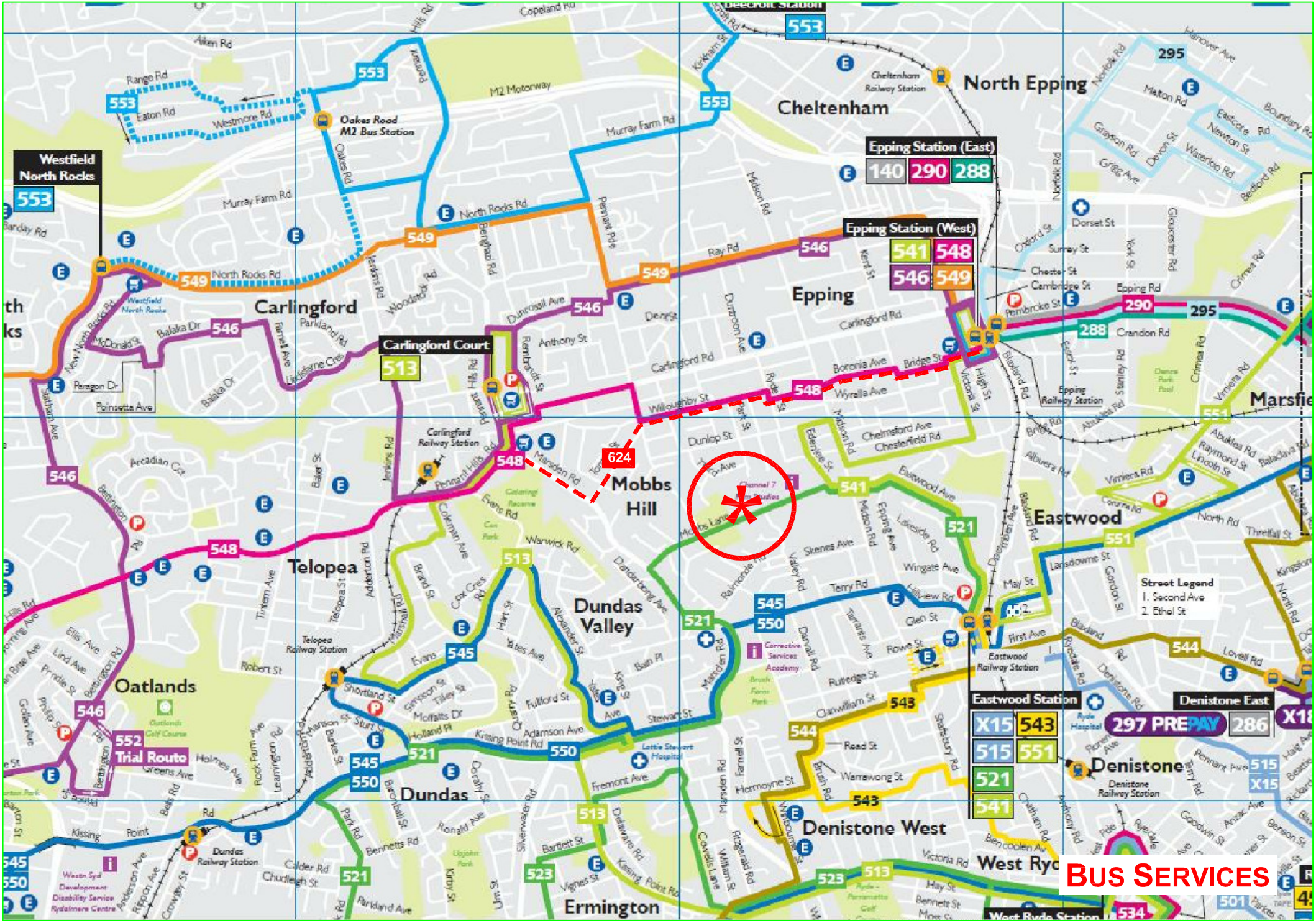
A network of local streets provides relatively direct walking access to Epping and Eastwood railway stations and commercial centres.

There are sealed footpaths on each side of Midson Road that connect the site to the adjoining neighbourhood. At present there are no paved footpaths on either side of Mobbs Lane along the frontage of the site.

Pedestrians are able to cross Mobbs Lane/Midson Road or Midson Road/Terry Road at the traffic signals.

Cyclists

A regional cycleway between Parramatta and Eastwood passes near the site along Terry Road and Hillview Road. Parramatta Council proposes a link from this route to Epping via Midson Road (directly past the site) then Boronia Avenue, Kent Street, Bridge Street into Epping. Council's Transport Management and Accessibility Plan includes the proposal for shared pedestrian and cyclist paths along Mobbs Lane.


Westfield North Rocks
553
Oakes Road M2 Bus Station
Carlingford
Carlingford Court
513
Carlingford Railway Station
Telopea
Telopea Railway Station
Oatlands
552 Trial Route
Dundas
Dundas Railway Station
Dundas Valley
Mobbs Hill
624
Cheltenham
Cheltenham Railway Station
North Epping
Epping Station (East)
140 290 288
Epping Station (West)
541 548
546 549
Epping
Epping Railway Station
Eastwood
Eastwood Railway Station
Eastwood Station
X15 543
515 551
521
541
Denistone East
297 PREPAY 286
Denistone
Denistone Railway Station
Denistone West
West Ryde
Ermington
Street Legend
1. Second Ave
2. Ethel St
BUS SERVICES

4. TRAFFIC ASSESSMENT

The previous traffic assessments for development of the site have relied on the criteria contained in the RTA Development Guidelines to project the potential traffic generation. There is a need to be cautious when adopting some of the RTA Landuse Traffic Generation criteria because:

- much of it is very old (ie from surveys undertaken in the late 1970's)

- some of it may appear to be a relevant but in fact there are significant differences when the base survey details are understood.

The RTA criteria for 'Medium Density Housing' is based on surveys undertaken and published by the former Traffic Authority of NSW in 1981 (as referenced in the RTA Guidelines 'Data and Analysis 14 – Home Units'). The definition 'Medium Density (P5-4 of the Guidelines) specifies a residential flat building containing between 2 and 20 dwellings including villas, townhouses, flats, semi-detached, terrace or row houses.

This is not the nature of the approved or proposed development at the site which will involve buildings of up to 6 levels. The implications are, as with 'high density residential' (ie 5 levels or more), there will be more single persons, lower car ownership and more reliance on travel by public transport.

The RTA traffic generation criteria for 'medium density' is:

Two-bedroom and smaller	0.4 – 0.5 vtph/dwelling
Three-bedroom + larger units and townhouses	0.5 – 0.65 vtph/dwelling

The RTA traffic generation criteria for 'high density residential' sub-regional (including such diverse locations as Sans Souci) is:

0.29 vtph/apartment

There are a lot of similarities between some RTA use characteristics and the Institute of Transport Engineers (ITE) criteria. For example:

	ITE	**RTA**
High rise apartments	0.30 vtph/unit	0.29 vtph/unit

The ITE criteria contains a 'Mid Rise Apartment' definition of 3 to 10 levels and the traffic generation criteria for this is:

AM	**PM**
0.30 vtph/unit	0.39 vtph/unit

TTPA have assisted the RTA and various Councils with numerous assessments to establish landuse traffic generation criteria. The company provided the RTA assessments for:

- High Density Residential
- Child Care Centres
- Gymnasiums
- Medical Centre
- Fast Food Restaurant (in collaboration)
- Nurseries (in collaboration)

TTPA have undertaken numerous surveys of existing residential apartment complexes over a range of circumstances including:

∗ proximity to public transport and services
∗ density and socio-economic groups.

A recent example has been of 2 large enclaves of modern apartment buildings in Rosebery (793 units) and Waterloo (377 units). Whilst these sites are within the developing near city area there are very limited bus services at present and the railway station is some 1.5 to 2.0 kms away. The results of these surveys revealed peak traffic generation rates of some 0.32 vtph per apartment.

When all of the accumulated TTPA data is assessed in relation to the potential traffic generation at the Epping site it is apparent that:

- the difference in generation in relation to 1 or 3 beds in minimal (besides the proposal is for some 90% two-bed apartments)

- the difference in generation between 'constrained' and 'unconstrained' parking is minimal

- the most likely traffic generation characteristics will be:

AM	**PM**
0.32 vtph/apartment	0.35 vtph/apartment

The projected traffic generation of development under the approved Concept Plan of 650 apartments was 360 vtph. Having regard to the more realistic traffic generation characteristics the projected traffic generation of the potential 800 apartments under the proposed amendment is:

AM	**PM**
800 apartments @ 0.32 – 256 vtph	800 apartments @ 0.35 – 280 vtph

A generation of 360 vtph (ie same as the existing approval) would represent a worst case (sensitivity test) assessment and for the new proposed 800 apartments then this would equate to 0.45 vtph/dwelling which the same as the RTA criteria for two-bedroom apartments.

It is quite apparent, considering all of the foregoing, that in reality the total traffic generation of development of the 800 apartments as now proposed will be no greater than that assessed for the approved Concept Plan. What is more it is most likely that the traffic generation outcome will be significantly less.

Therefore, the traffic implications in terms of road/intersection capacity and traffic related environmental implications will be satisfactory (given the considerations during the approval of the existing Concept Plan). The proposed addition of a small neighbourhood shop in the development scheme will not act to increase traffic as there will be no external attraction other than from adjacent development. In fact the provision will act to reduce external trips by avoiding the need for residents to drive out of the site to make convenience retail purchases.

Recent traffic surveys have demonstrated that traffic movements along Mobbs Lane and on the connecting access road system have not increased since the assessment undertaken for the approved Concept Plan. In fact the volumes have decreased despite development on the Brickworks site. Accordingly, the conclusions of the previous assessment remain valid (although the traffic generation outcome for site development will most likely be lower).

It is accepted that the required road upgrade works of the existing consent will be maintained.

5. TRANSPORT ASSESSMENT

The existing public transport services available to residents on the site will comprise:

* 4 bus routes with a multitude of destinations including Epping and Eastwood Railway Stations and the major centres of Parramatta, Chatswood and Macquarie

* Epping and Eastwood Railway Stations which are within reasonable walking distance.

Existing bus services in the area include:

* Route 541 – travels via Edenlee Street to key destinations of Epping and Eastwood Train Stations. The bus route has 32 weekday between 6.00am and 7.00pm. The existing route frequencies for Route 541 have 40 minute intervals during the peak.

* Route 521 – travels via Mobbs Lane to key destinations of Eastwood, Dundas and Parramatta. The bus route has 22 weekday services between 8.00am and 6.00pm and 12 Saturday services between 9.00am and 6.00pm. The existing route frequencies for Route 521 have 45 minute intervals during the peak and 180 minute intervals on the weekend.

* Route 545 / 550 – travels via Terry Road to key destinations of Chatswood, Macquarie University, Eastwood and Parramatta. Route 545 detours via Dundas. The bus route has 68 services weekday between 4.30am and 11.30pm and 39 Saturday services between 6.30am and 9.30pm. The existing route frequencies for Route 545/550 have 10 minute intervals during the peak and 20 minute intervals on the weekend.

∗ Route 624 – travels via Willoughby Road to key destinations of Parramatta, Carlingford and Epping. The bus route has some 60 services weekday between 6.00am and 9.00pm and 27 Saturday services between 6.00am and 7.00pm. The existing route frequencies for Route 624 have 30 minute intervals during the peak and 60 minute intervals on the weekend.

The potential additional bus patronage resultant to development under the proposed amendment is assessed in the following:

		Approved Concept		Amendment	
	PPD*	**Dwellings**	**People**	**Dwellings**	**People**
One-bed	1.1	33	37	47	52
Two-bed	2.2	97	214	705	1,551
Two+-bed	2.2	260	572	-	-
Three-bed	2.8	163	457	24	67
Three+-bed	2.8	97	272	24	67
Total		**650**	**1,552**	**800**	**1,737**
Additional residents				**185**	

** Persons per dwelling*

Previous studies[2] have established the 'distribution' of daily trips (employment, education and other) and the 'participation' rate for bus travel (based on existing mode split for the area). A comparison of the bus user outcomes for the approved (1) and amended (2) schemes is provided in the following:

Distribution		**(1)**	**(2)**	**Bus#**	**(1)**	**(2)**
Employment	43%	667	747	6%	40	45
Education	25%	338	434	12%	41	52
Other	32%	497	556	6%	30	33
Total	**100%**	**1,552**	**1,737**		**111**	**130**

 # Includes Multiple modes

[2] *Residential Concept Plan*
Mobbs Lane, Epping – Bus Servicing Report
Masson Wilson Twiney – June 2005

Thus, there is the potential for an additional 20 persons per day wanting to travel by bus or bus/rail as a result of the amendment permitting 800 dwellings.

It is apparent that the existing multiple choice, frequency and convenience of the available bus services will be quite adequate to provide for the movement of 20 additional passengers spread throughout the peak travel periods. Previous assessments have foreseen that completion of residential development on the Channel 7 and Brickwork sites will result in the demand for, and economic feasibility, of increasing the frequency of bus services in the area.

Development under the proposed amendment would result in some 200 additional residents who will support the viability of the existing services and encourage the provision of additional services.

It is apparent that because of the convenience, capacity and availability of the existing public transport services there will be no adverse transport implications as a result of the amendment.

6. PARKING

The parking provision outcome of the approved Concept Plan is compared with that of the proposed amendment in the following:

Type	Approved Concept	Proposed Amendment
One-bed	33 spaces	47 spaces
Two-bed	121 spaces	705 spaces
Two-bed + s	325 spaces	-
Three-bed	245 spaces	48 spaces
Three-bed + s	145 spaces	48 spaces
Visitor	163 spaces	200 spaces
Total	1,032 spaces	1,048 spaces

The proposed 'constrained' provision for residents will be appropriate, however consideration could be given to a reduction of spaces for visitors in line with the recommendations in the RTA Guidelines for High Density Residential (ie 1 space per 5 – 7 dwellings).

7. CONCLUSION

This assessment has considered the proposed amendment to the existing Consent to provide a development outcome of up to 800 dwellings (in lieu of the 650 dwellings approved). It is concluded that:

* there will be no adverse traffic implications as the potential traffic generation will be no greater than that under the existing consent

* there will be no adverse implications for transport services due to the existing convenience, capacity and frequency of bus and rail services

* there will be an appropriate parking provision

* pedestrians, cyclists and bus patrons will be suitably encouraged and facilitated with the provisions proposed under the approved Concept Plan.

APPENDIX A

TRAFFIC SURVEYS

R.O.A.R. DATA

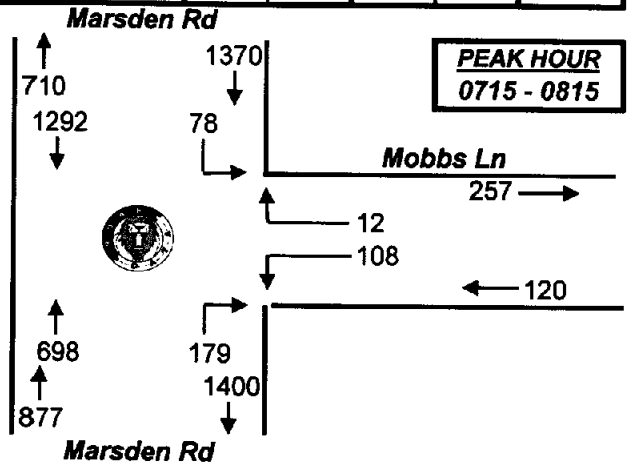
Reliable, Original & Authentic Results

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

Client : T.T.P.A
Job No/Name : 3194 EPPING Mobbs Lane
Day/Date Thursday 10th June 2010

All Vehicles	NORTH		EAST		SOUTH		
	Marsden Rd		Mobbs Ln		Marsden Rd		
Time Per	T	L	R	L	R	T	TOTAL
0700 - 0715	319	14	2	20	20	165	540
0715 - 0730	320	23	1	22	44	172	582
0730 - 0745	353	23	0	22	36	173	607
0745 - 0800	296	16	4	23	52	190	581
0800 - 0815	323	16	7	41	47	163	597
0815 - 0830	300	15	6	29	54	164	568
0830 - 0845	299	28	4	28	35	164	558
0845 - 0900	234	16	7	20	42	143	462
Period End	2444	151	31	205	330	1334	4495

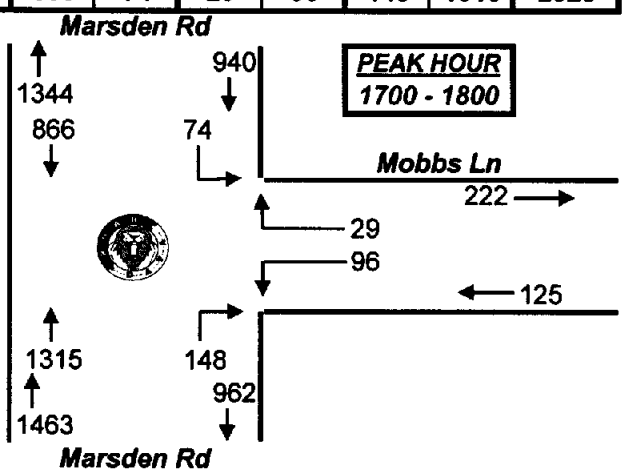
	NORTH		EAST		SOUTH		
	Marsden Rd		Mobbs Ln		Marsden Rd		
Peak Per	T	L	R	L	R	T	TOTAL
0700 - 0800	1288	76	7	87	152	700	2310
0715 - 0815	1292	78	12	108	179	698	2367
0730 - 0830	1272	70	17	115	189	690	2353
0745 - 0845	1218	75	21	121	188	681	2304
0800 - 0900	1156	75	24	118	178	634	2185
PEAK HR	1292	78	12	108	179	698	2367



© Copyright ROAR DATA

All Vehicles	NORTH		EAST		SOUTH		
	Marsden Rd		Mobbs Ln		Marsden Rd		
Time Per	T	L	R	L	R	T	TOTAL
1600 - 1615	172	10	5	18	25	267	497
1615 - 1630	202	15	11	21	21	296	566
1630 - 1645	207	19	8	24	21	305	584
1645 - 1700	176	13	9	25	30	288	541
1700 - 1715	211	19	9	21	33	324	617
1715 - 1730	203	17	4	23	34	339	620
1730 - 1745	244	19	7	24	39	353	686
1745 - 1800	208	19	9	28	42	299	605
Period End	1623	131	62	184	245	2471	4716

	NORTH		EAST		SOUTH		
	Marsden Rd		Mobbs Ln		Marsden Rd		
Peak Per	T	L	R	L	R	T	TOTAL
1600 - 1700	757	57	33	88	97	1156	2188
1615 - 1715	796	66	37	91	105	1213	2308
1630 - 1730	797	68	30	93	118	1256	2362
1645 - 1745	834	68	29	93	136	1304	2464
1700 - 1800	866	74	29	96	148	1315	2528
PEAK HR	866	74	29	96	148	1315	2528



R.O.A.R. DATA

Reliable, Original & Authentic Results

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

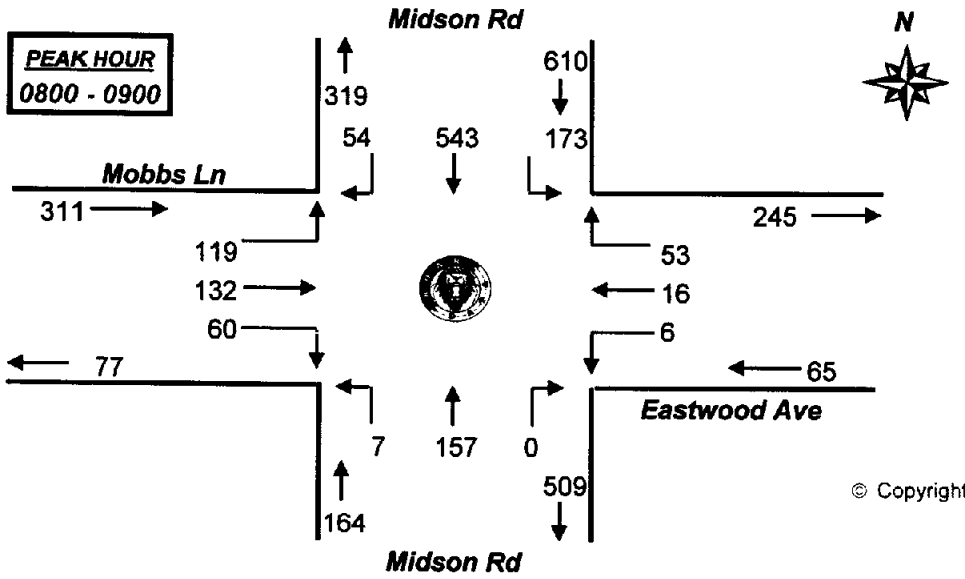
Client : T.T.P.A
Job No/Name : 3194 EPPING Mobbs Lane
Day/Date Thursday 10th June 2010

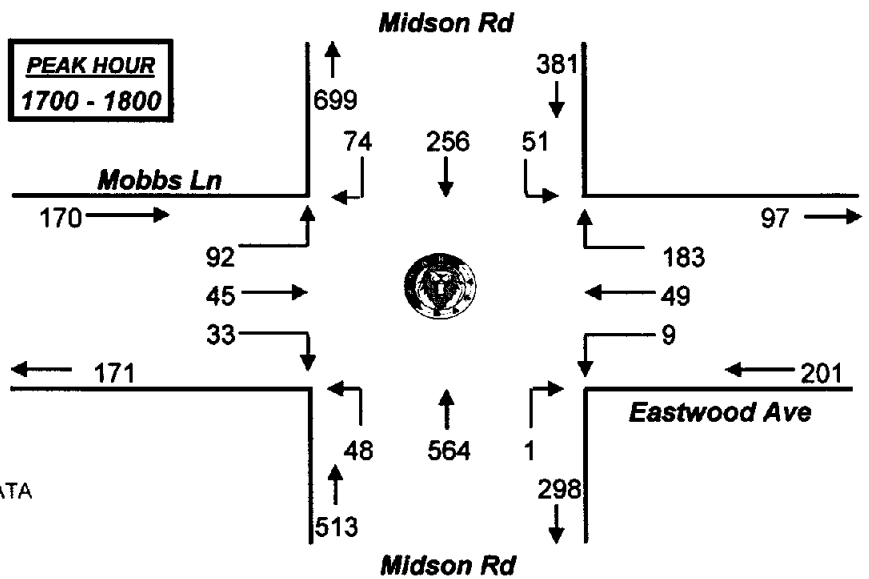
All Vehicles	NORTH Midson Rd			WEST Mobbs Ln			SOUTH Midson Rd			EAST Eastwood Ave			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0715	21	96	19	14	30	5	1	17	1	0	7	9	220
0715 - 0730	22	97	22	18	31	18	3	24	0	2	3	10	250
0730 - 0745	25	117	20	17	38	14	1	30	0	0	2	8	272
0745 - 0800	28	129	20	29	49	12	4	27	0	1	8	12	319
0800 - 0815	29	125	25	26	40	16	2	36	0	4	3	22	328
0815 - 0830	31	131	30	30	32	11	0	37	0	1	4	12	319
0830 - 0845	31	143	20	31	32	12	4	37	0	1	5	11	327
0845 - 0900	22	144	19	32	28	21	1	47	0	0	4	18	336
Period End	209	982	175	197	280	109	16	255	1	9	36	102	2371

All Vehicles	NORTH Midson Rd			WEST Mobbs Ln			SOUTH Midson Rd			EAST Eastwood Ave			
Time Per	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1615	9	81	20	28	10	6	8	106	0	6	7	31	312
1615 - 1630	11	69	19	23	5	4	17	118	0	2	7	42	317
1630 - 1645	11	71	20	21	12	2	9	104	0	3	8	40	301
1645 - 1700	12	55	14	20	7	3	9	130	0	2	5	38	295
1700 - 1715	12	63	14	21	19	15	10	126	0	5	12	40	337
1715 - 1730	10	74	26	23	12	5	13	147	0	1	11	44	366
1730 - 1745	14	61	16	22	8	6	15	147	0	3	13	60	365
1745 - 1800	15	58	18	26	6	7	10	124	1	0	13	39	317
Period End	94	532	147	184	79	48	91	1002	1	22	76	334	2610

	NORTH Midson Rd			WEST Mobbs Ln			SOUTH Midson Rd			EAST Eastwood Ave			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
0700 - 0800	96	439	81	78	148	49	9	98	1	3	20	39	1061
0715 - 0815	104	468	87	90	158	60	10	117	0	7	16	52	1169
0730 - 0830	113	502	95	102	159	53	7	130	0	6	17	54	1238
0745 - 0845	119	528	95	116	153	51	10	137	0	7	20	57	1293
[illegible]	113	543	94	119	132	60	7	157	0	6	16	63	1310
PEAK HOUR	113	443	54	119	132	60	7	157	0	6	16	43	1150

	NORTH Midson Rd			WEST Mobbs Ln			SOUTH Midson Rd			EAST Eastwood Ave			
Peak Time	L	T	R	L	T	R	L	T	R	L	T	R	TOT
1600 - 1700	43	276	73	92	34	15	43	458	0	13	27	151	1225
1615 - 1715	46	258	67	85	43	24	45	478	0	12	32	160	1250
1630 - 1730	45	263	74	85	50	25	41	507	0	11	36	162	1299
1645 - 1745	48	253	70	86	46	29	47	550	0	11	41	182	1363
[illegible]	51	256	74	92	45	33	48	544	1	9	49	183	1385
PEAK HOUR	51	256	74	92	45	33	48	464	1	9	49	143	1265





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