

WINNING TRAFFIC SOLUTIONS

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TRAFFIC AND PARKING ASSESSMENT REPORT

FOR

PROPOSED CHINESE TEMPLE & PLACE OF WORSHIP

47-51 Edensor Road Cabramatta West

October 2012

CLIENT
Australian Chinese Teo Chew Association

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for

PROPOSED CHINESE TEMPLE & PLACE OF WORSHIP 47-51 Edensor Road, Cabramatta West

1 Introduction

1.1 Background

Winning Traffic Solutions Pty. Ltd. has been engaged to prepare a report assessing the access, traffic and parking aspects of a proposed development at 47-51 Edensor Road, Cabramatta (refer Appendix 1) in support of the Development Application to Fairfield City Council.

The proposed development of the subject site is the demolition of existing single storey residential buildings and construction of a Chinese Temple and Place Of Worship accommodating ground floor car parking, three one storey buildings and one two-storey main multi-purpose Temple/Office building, separate amenities block and associated fit-out works and signage.

The subject site is located on the right bank of Green Valley Creek. It is understood Council issued a flood advise indicating that part or all of the site might be affected by the main stream flooding. A Flood Risk Management Study has been prepared by Kozarovski and Partners (January 2012) and is submitted separate to this Traffic report.

Given the nature of the adjoining road environment (described below), that provides access of the proposed development early advice was sought from both Roads & Maritime Services (RMS - formerly RTA) and Council to determine the desired vehicle access of the site.

Edensor Roar Road is an RMS classified road (SR 7228) that is administered by Council under delegated authority of the RMS.

As such, discussions with RMS deferred the decision of access to Council and Local Traffic Committee to determine.

Following an on-site meeting with Council Officers it was resolved that the preferred vehicle access is to be located toward the western end of the site and configured to allow left in/left out vehicle movements only that is to be supported by a raised central median within Edensor Road.

It was on this basis that the design of vehicle access, location of buildings and parking facilities of the site was determined (refer Appendix 2).

This report reviews the access, traffic and parking issues of the proposed development.

1.2 Scope of Report

An evaluation of the traffic impacts, parking and access of the proposed development has been based on Australian Standards, Roads and Traffic Authority (2002) "*Guide to Traffic Engineering Developments*" (Issue 2.2) and relevant Council DCPs in particular Chapter 12 – Car Parking, Vehicle and Access Management (Version 17).

This statement provides an evaluation of the traffic impacts and parking requirements of the proposed development described below.

1.3 Site Description and Adjoining Road Network

The site is located o the northern side of Edensor Road and identified as 47-51 Edensor Road, Cabramatta West and is understood might be affected by the main stream flooding of Green Valley Creek (refer Flood Risk Management Study).

The subject site is occupied by stand alone single storey fibro and corrugated iron buildings. The existing driveway access is located just to the west of the Meadows Road roundabout and pedestrian access via the same facility.

It is proposed to demolish existing buildings occupying the site and construct a Chinese Temple and associated works for the use as a Place Of Worship.

For the purpose of description Edensor Road is orientated in an east/west direction and the site is located on the northern side straddling the junction of Meadows Road.

Edensor Road is an RMS classified road (SR 7228 – to the west of Meadows Road) and managed by Council under delegated authority of RMS. Edensor Road to the east of Meadows Road is a local access road managed by Council.

Edensor Road operates as a two-lane, two-way road, is approximately 20m wide accommodating 12.6m wide bitumen sealed roadway with kerb and gutter, 3.7m wide footways with 1.2m wide concrete paved footpath in the southern footway only. The road network serves predominantly a residential environment.

At the junction of Edensor Road and Meadows Road single lane roundabout traffic management is employed and similarly at the junction of Humphries Road in the west.

The subject site is intermittently served by Bus public transport with Bus Stops located immediately to the east of Meadows Road. In the eastbound carriageway a Bus Stop is located in front of the subject site toward its eastern boundary that limits the availability of access.

Edensor Road is relatively flat vertical and relatively straight horizontal alignment and speed regulated at 60 km/hr.

Kerbside parking restrictions "No Stopping" are employed on all legs of the roundabout.

Traffic volume counts were undertaken of the Edensor Road/Meadows Road roundabout for the purpose of assessing traffic generated impacts and are shown in Appendix 3.

2 Evaluation of Traffic Generated Impacts

2.1 Description of Proposed Development

The proposed development of the subject site is the demolition of existing single storey residential buildings and construction of a Chinese Temple and Place Of Worship accommodating ground floor car parking, three one storey buildings and one two-storey main multi-purpose Temple/Office building, separate amenities block and associated fit-out works and signage.

Vehicle and pedestrian access will be via the designated areas abutting Edensor Road (refer Appendix 2).

Proposed vehicle access of the site is restricted to left in/left out only that is controlled by central median to be constructed as part of the development proposal extending from the existing splitter island at the Meadows Road roundabout (in the east) to the existing pedestrian refuge island just west of Green Valley Creek. In addition a 1.2m wide concrete pathway along the frontage of the site is proposed as part of the development works.

There are two residential properties opposite the proposed development along Edensor Road that will need to access the Meadows Road roundabout to gain vehicle access to driveways if approaching from the west. This is considered a minor impact as the deviation to the roundabout by vehicles is not great and is considered a safer operation for access.

On this basis the major impacts of generated traffic by the proposed development will be along Edensor Road and intersections at Meadows Road (in the east) and Humphries Road (in the west).

2.2 Times and Description of the use of the Buildings

Generally the proposed operation of the proposed development are anticipated as follows:

Standard Operation/Prayer	
Mondays to Sundays	9:00am to 5:00pm
Number of Staff	Max. 3 administrative staff
Expected Attendance	expected 20 people at any one time
<u>Special Event Occasions</u> 1 st and 15 th days of every lun Expected peak attendance	ar month operating from 9:00am to 5:00pm

Chinese New Year (January/	/ <u>February)</u>
Operations	9:00am to Midnight
Expected attendance	450 people during the course of the day
Buddha's Birthday (April) Operations Expected attendance	9:00am to 5pm 250-300 people during course of the day
<u>Ullambana (July/August – 7 o</u>	<u>day festival)</u>
Monday to Sunday	9:00am to 5:00pm

180 people on the first Sunday during the 7 day event

All relevant buildings will be used for prayer and the Main Temple for general administrative activities and prayer as required.

2.3 Evaluation of Traffic Generated Impacts

Expected Attendance

In the first instance consideration needs to be given to the proposed access driveway and connections to Edensor Road being left in/left out only controlled by central median in Edensor Road. Traffic entering the site must approach from the west and leave exiting to the east.

It is understood the demographics of clientele for the Chinese Temple reside mainly in the west and it is considered the major impacts will occur at the Meadows Road roundabout during times of peak Temple Worship activities.

Notwithstanding the single lane roundabout at the intersection of Edensor Road and Humphries Road will facilitate access of the Temple from the east but the impacts are considered not as great.

Further consideration must also be given to the times of Temple Worship activities. Those times are indicated above and are mainly weekend activities except during major events time on three occasions throughout the year.

Peak hour Traffic counts were undertaken at the Edensor Road/Meadows Road roundabout (refer Appendix 3) to assist with Council assessment and evaluate traffic generated impacts by the proposed development.

Calculated analysis of the existing roundabout operation provided a Level Of Service "A" with Average Delay per vehicle much less that 14 seconds and Degree Of Saturation less than 0.4. Thus these results indicate the existing roundabout provides "good operating conditions" with "good reserve capacity" in terms of operating efficiency.

The overall impact of generated traffic into the road network by the proposed development has been assessed on the basis of the operations listed in Section 2.2 above.

During Standard Operation (generally outside of commuter peak times) and Special Event Occasions (during weekends) generated traffic will have minimal impact on the adjoining road network.

On other occasions listed above are "one-off events" that will impact the Edensor Road roundabouts operation (mainly at weekends) to the extent that "Average Vehicle Delay" will increase as will the 'Degree Of Saturation" but it is considered not to the extent that the "Level Of Service" currently provided at the Edensor Road roundabout would reduce below Level Of Service "B" – that provides a good operation with acceptable delays and spare capacity.

The above evaluation is similar to the Edensor Road/Humphries Road roundabout operation.

From the above information it can be seen that the attraction of worshipers to the facility is generally not great during commuter peak travel times and traffic impacts are considered negligible on the adjoining road network, except during "Special Occasions" three times a year.

In addition the time of attendance of worshipers, being outside of the normal commuter peak times, would also have minimal impact on the level of service of the adjoining road network and intersections.

In summary it is considered that peak hour generated traffic to and from the proposed development being outside of normal commuter peak times will have a minimal impact on the operation of Edensor Road and associated intersections.

3 Evaluation of Parking Requirements

3.1 General

Council DCPs in particular Chapter 12 – Car Parking, Vehicle and Access Management (Version 17) at section 12.1 Parking Rate requires the following controls for the type of facilities accommodated by the proposed development:

Place of Worship:

1 space per 6 seats or 1 space per 5*m*² of gross leasable area (whichever is the greater). The appropriateness of this rate should be confirmed by traffic study.

Offices:

! space per 40m² gross leasable area when provided on-site

and as the site also provides a caretaker residence that is greater than 400m from railway station or major bus station, requires;

3 or more bedroom unit (ie greater than 110m²) 2 spaces **plus** 0.25 spaces for visitor parking

Due to the size of the proposed development and the nominated activities of the Temple and associated functions it was difficult to identify a similar facility that would allow confirmation of the required parking rate.

Notwithstanding it is offered for Council consideration that a more appropriate rate would be the calculated areas that would accommodate worshipers (where nominated) relative to generating parking demand whilst maintaining Council's DCP requirements for other proposed activities on the site.

The following parking assessment is offered for Council consideration as an appropriate evaluation of the Temple's parking needs.

3.2 Parking Assessment

The following car parking requirements have been assessed applying Council's DCP Guidelines listed above.

Level	Building	Calculated GFA	GLFA	Nominated Worship Area	Car Parking Rate	Number of car Parking Spaces Required
First Floor	Kwan Kong Hall	184.27 m ²	169.47 m ²	101.08 m ²	1 space /5m ²	20.22
	Kwan Yin Hall	184.27 m ²	169.47 m ²	101.08 m ²	1 space /5m ²	20.22
	Columbarium	258.19 m ²	240.79 m ²	42.83 m ²	1 space /5m ²	8.56
	Office (1 st Floor)	212.10 m ²	200.47 m ²		1 space/40m ²	5.01
	Dining Hall and kitchen	143.51 m ²	132.24 m ²		(1 space /5m ²)	⁽¹⁾ See Note below
	Caretaker Residence	118.04 m ²	118.4 m ²		2 spaces 3 or more bedrooms + 0.25 visitor	2.25
	Toilet Amenities	49.49 m ²				
Second Floor	Main Hall	317.46 m ²	297.12 m ²	178.43 m ²	1 space /5m ²	35.68
	Store/ Future Columbarium	258.19 m ²	240.79 m ²		1 space/40m ²	⁽²⁾ 6.02
Total		1725.52 m ²	1568.75m ²			97.96

NOTES

- (1) This area is considered part of the residential component of the development however will be utilised for serving afternoon teas/refreshments for worshippers during the first and fifteenth day of each lunar month and special events.
- (2) This area has been assessed initially as a storeroom that will ultimately accommodate ashes of the deceased but does not accommodate a prayer area that is provided on the first floor. It is anticipated it will take many years before this Columbarium space is required.

It is proposed to provide **107 car parking spaces** for the proposed development (refer Appendix 2) and is considered more than adequate to accommodate parking demand during normal operation and special events excepting "Special Occasions" three times a year (refer Section 2.2 above).

In addition and adjacent to Bay 41 is provision for Loading Bay with easy access to lift. This Loading Bay is provided for access of a SU Van for the delivery of goods and services that is expected to be minimal and infrequent for the operation of the Temple.

The assessed number of car parking spaces aligns with the requirements of Council's DCP and it is offered that peak parking demand would only occur at a maximum of 3 times per year. Most of this demand would occur outside of peak hour commuter traffic flows and

mainly on weekends. During these periods traffic management personnel would be engaged to manage the car parking activities.

At other times the car park would be near to empty.

3.3 Parking Layout

Generally covered car parking facilities are provided in accordance with AS/NZS 2890.1, accommodates disabled parking in accordance with current AS 2890.6, bicycle parking (AS 2890.3) and pedestrian access including lift facilities to the first floor level of the development.

The car parking area accommodates 4 disabled parking bays (that exceeds Council requirements) and designed in accordance with current AS 2890.6 – Off-street Parking For People With Disabilities with access to lift facilities to the first floor. Ample space is provided to accommodate nominated bicycle parking facilities and an abundance of stairways for abled pedestrians to access first floor activities.

The minimum height/clearance of the ground floor undercover car park is nominated at 2.5m, to accommodate disabled vehicle access as per AS 2890.6 (refer Appendix 2).

The driveway facility accessing the car park accommodates a sliding access gate (1.8m high) for security purposes. The driveway accommodates sufficient storage length to accommodate stored vehicles awaiting access to Edensor Road. It is not anticipated the vehicle storage requirements would exceed 4 to 5 vehicles during busiest times (excluding special event occasions).

Vehicle access of Edensor Road is proposed as left in/left out only that is controlled by raised central median in Edensor Road and to be constructed as part of the development proposal in addition to a 1.2m wide concrete pathway along the frontage of the site.

4 Conclusions

It is considered that the proposed development will not adversely impact the traffic operations within the site or on the surrounding road network during critical peak commuter times.

It is submitted that the proposed parking facilities and management provided on the site are more than adequate to meet the requirements of the proposed development during the majority of operationally activities.

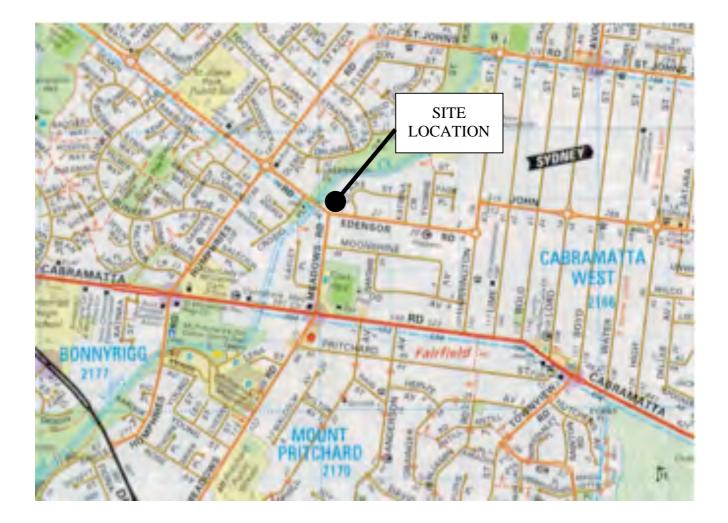
Overall it is considered that traffic/pedestrian flows and circulation, the vehicular access and parking provisions/supervision within and outside of the proposed development during peak Temple activity times, are adequate and meet Council requirements.

Jury Marris

Terry. Winning Director Winning Traffic Solutions Pty. Ltd.

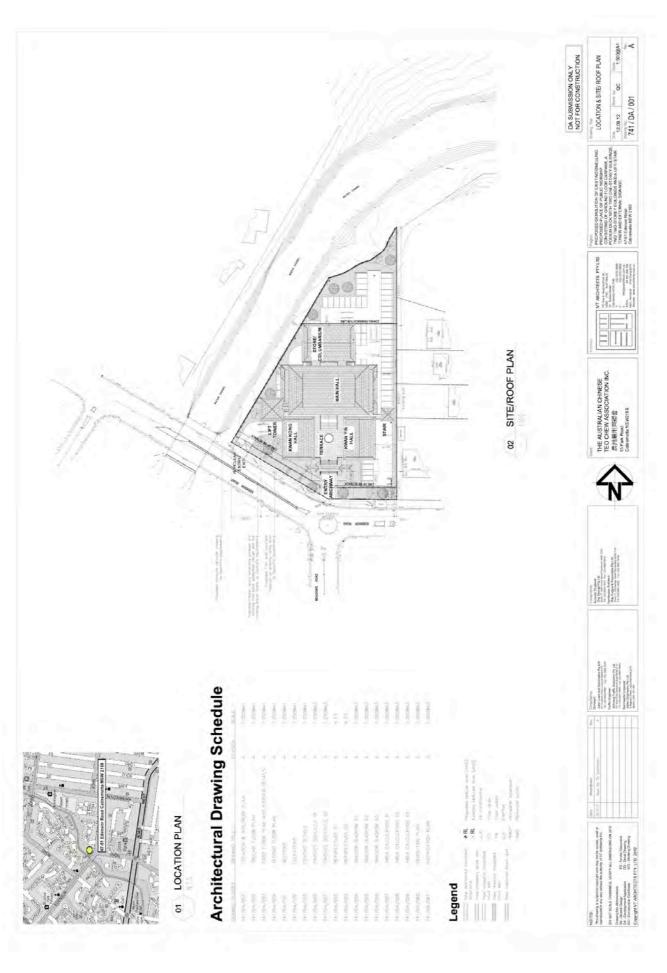
APPENDIX 1

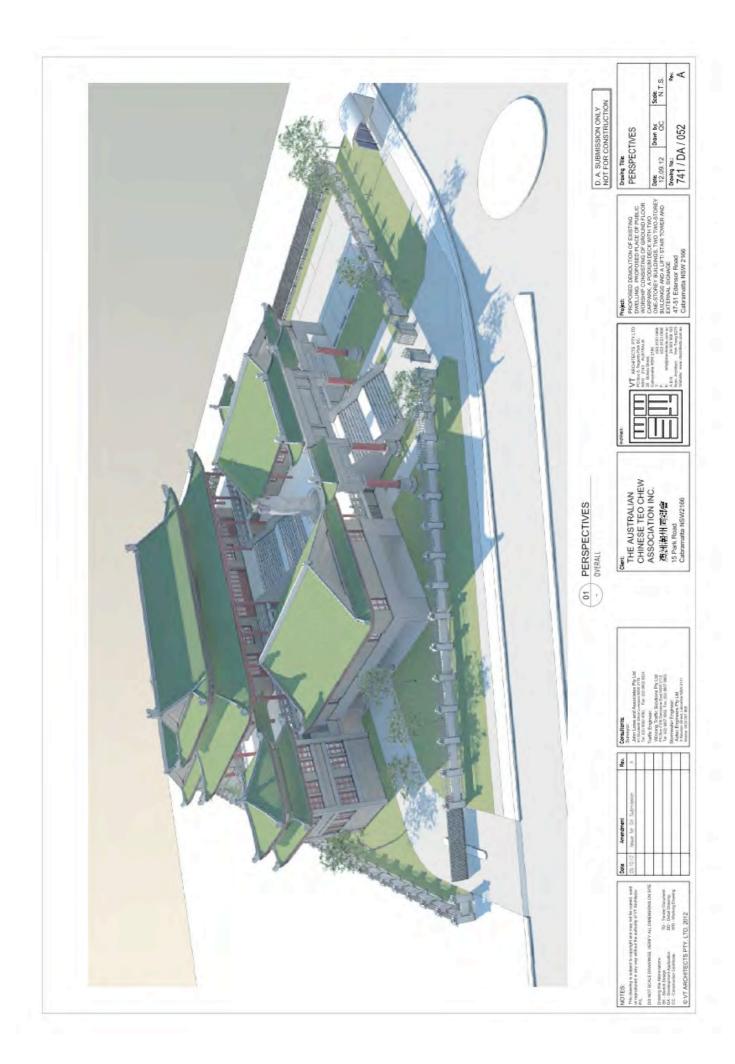
SITE LOCATION

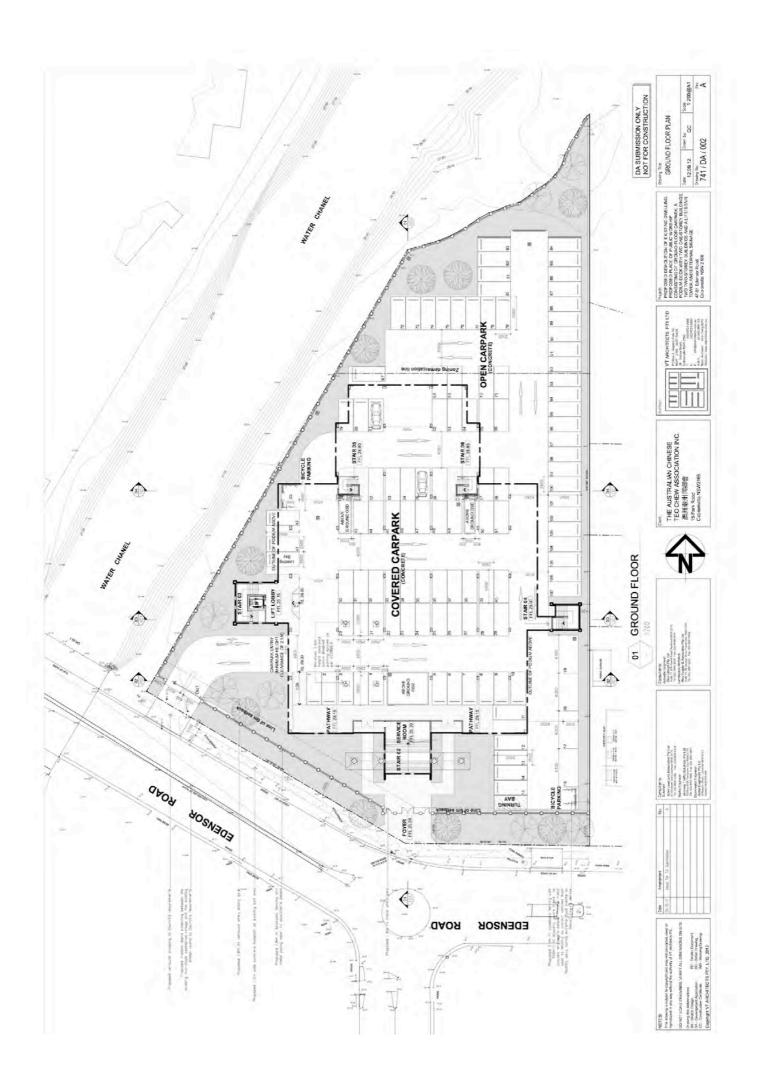


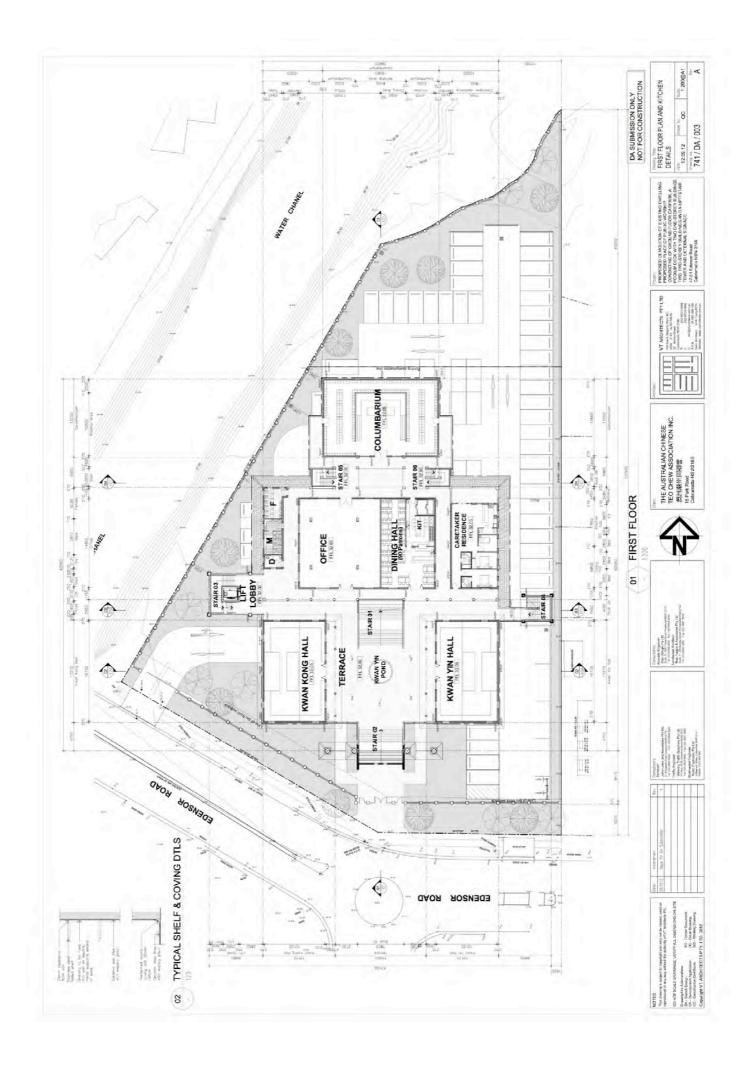
APPENDIX 2

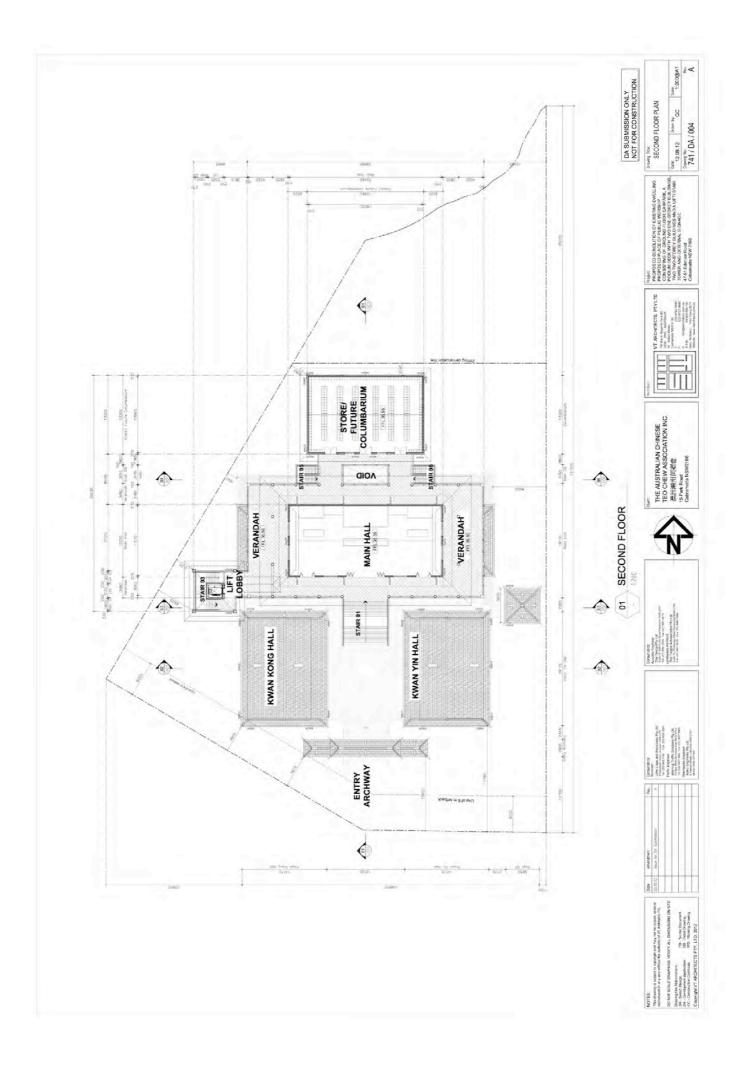
PROPOSED DEVELOPMENT

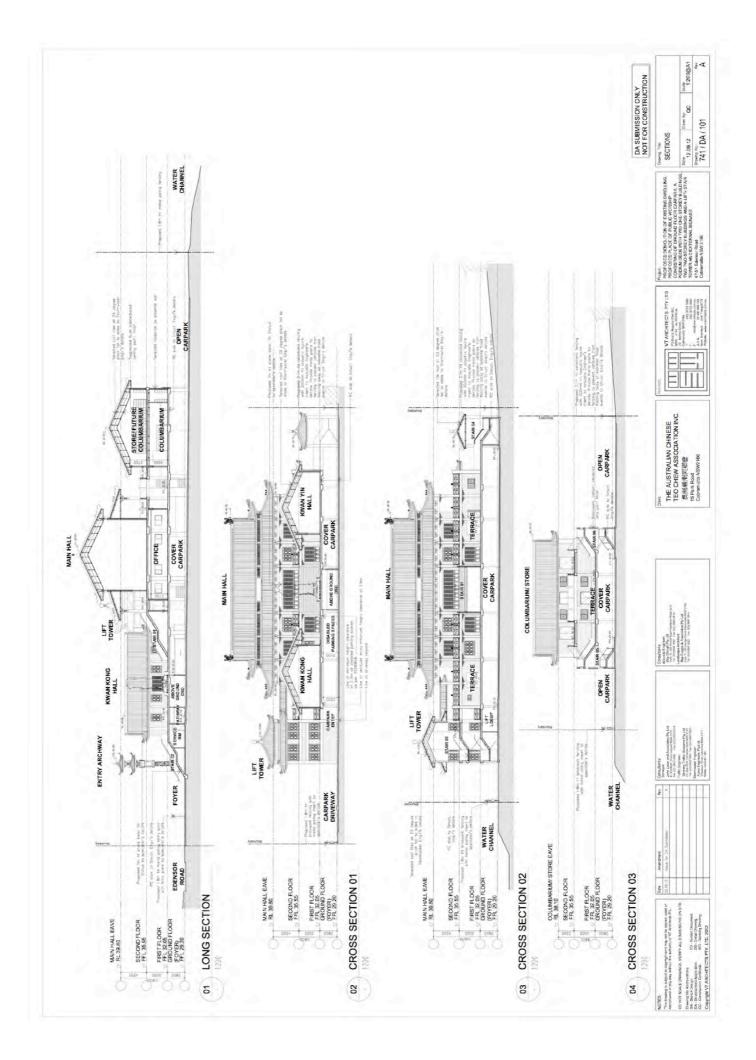


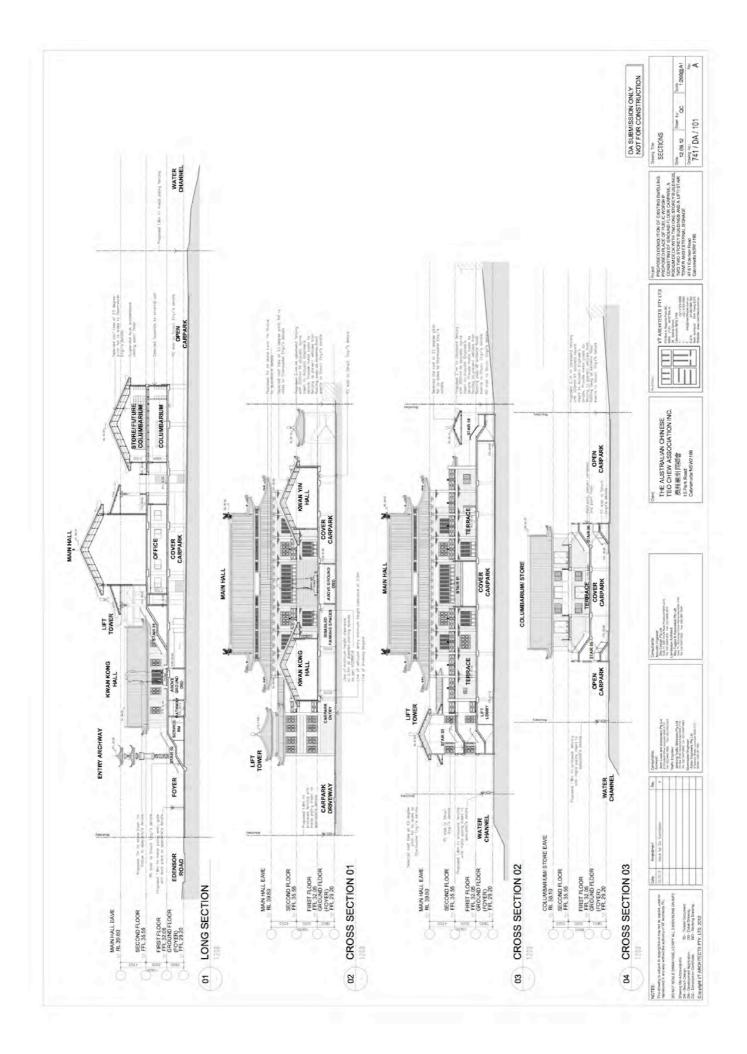




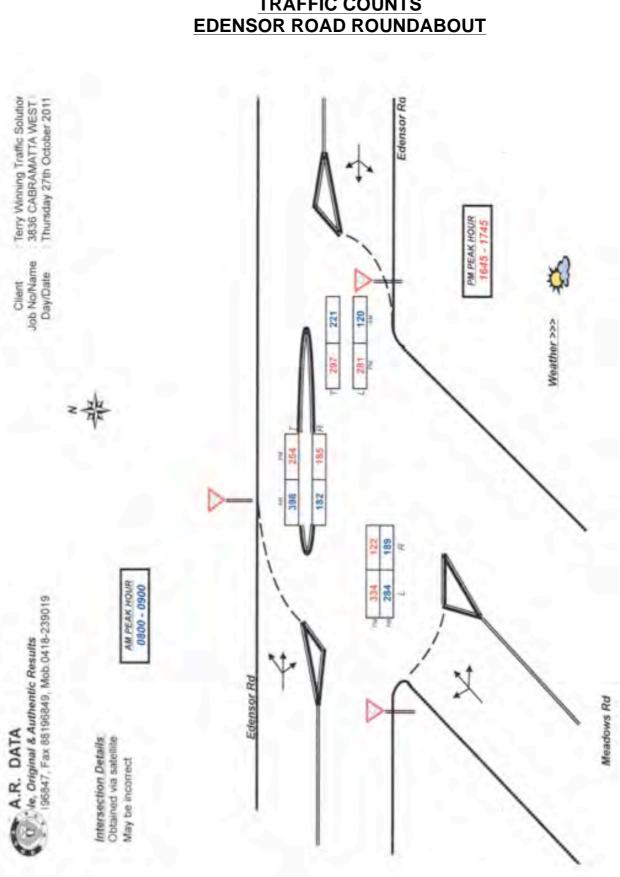




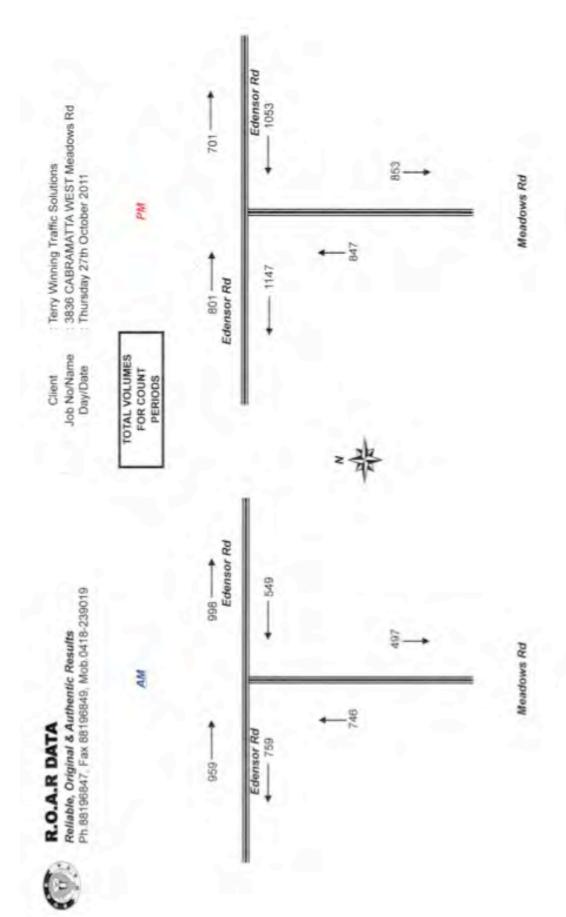




APPENDIX 3



TRAFFIC COUNTS



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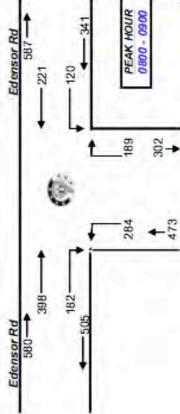
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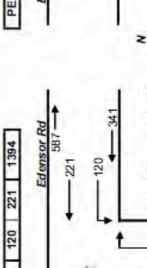
All Vehicles

	WE	WEST	SOUTH	H	EAST	ST	
	Edens	Edensor Rd	Meado	Meadows Rd	Edensor Rd	or Rd	
Time Per	T	æ	-	æ	-	T	TOTAL
0700-0715	48	8	12	16	22	30	172
0715-0730	61	20	30	38	14	21	184
0730-0745	63	38	35	54	25	38	253
0745-0800	16	29	33	40	18	40	251
0600-0815	18	33	46	41	26	39	266
0615-0630	93	34	11	42	40	48	328
0630-0645	113	15	74	67	29	70	389
0645-0900	111	61	63	25	25	64	111
Period End	661	298	409	337	199	350	2254

	WEST	ST	HTUOS	Ŧ	EAST	ST	
	Edens	Edensor Rd	Meado	WS Rd	Edenso	ior Rd	ł
Peak Per	T	æ	-	a	-	T	TOTAL
0700-0800	263	116	125	148	52	129	860
0715-0815	296	120	144	173	83	138	954
0730 - 0830	328	134	185	121	109	165	1098
0745-0845	378	150	224	172	113	197	1234
0050-008	398	182	284	189	120	221	1394

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221
120
189
284
182
398
HR
PEAK





WEST	
	All Vehicles
: Thursday	Day/Date
: 3836 CA	Job No/Name
: Terry Wir	Client

VBRAMATTA WEST Meadows Rd : Terry Winning Traffic Solutions

y 27th October 2011

	WE	ST	SOL	HTL	EAS	ST	
	Edensor	or Rd	Meado	WS Rd	Edenso	orRd	
Time Per	T	æ	٦	æ	-	T	TOTAL
1600 - 1615	48	39	25	23	48	41	256
1615 - 1630	X	42	68	33	51	42	290
1630 - 1645	56	38	72	83	23	76	333
1845 - 1700	8	37	96	32	65	75	359
1700 - 1715	73	52	97	32	87	75	416
1715 - 1730	67	47	70	24	25	71	336
1730 - 1745	88	49	72	34	72	76	362
1745 - 1800	45	40	72	37	67	88	349
Period End	457	344	603	244	509	24	2701

	WESI	ñ	D'S	HINDS	EASI	ñ	
	Edens	Edensor Rd	Meado	Meadows Rd	Edens	Edensor Rd	
Peak Per	T	×	-	æ	-	T	TOTAL
1600 - 1700	213	156	292	117	226	234	1238
1815 - 1715	238	169	332	126	265	268	1398
1630 - 1730	251	174	334	117	271	297	1444
1645 - 1745	254	185	334	122	281	297	1473
1700 - 1800	244	188	311	127	283	310	1463

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Meadows Rd

